



360044

**R E P O R T**

**QUARTERLY GROUNDWATER  
MONITORING REPORT  
(INCLUDING SENTINEL  
WELLS)**

**OCTOBER 2007**

**1190505040 – Madison County – ILR000128249  
The Hartford Area Hydrocarbon Plume Site  
Hartford, Illinois**

*Prepared for*  
**Hartford Working Group**  
**Hartford, Illinois**

January 15, 2007

**URS**

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January 15, 2008

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RE: Quarterly Groundwater Monitoring Report – October 2007  
The Hartford Area Hydrocarbon Plume Site/Hartford, Illinois  
ILR000128249 – Madison County – LPC 1190505040  
URS Project No. 21561445

Dear Messrs. Turner and Faryan:

URS Corporation (URS), on behalf of the Hartford Working Group (HWG) is submitting this Quarterly Groundwater Monitoring Report for the 4<sup>th</sup> Quarter of 2007. The activities presented in this report were completed in accordance with Clayton's January 4, 2006 *Dissolved Phase Groundwater Investigation Report*. This report also includes a discussion of the sentinel well sampling activities and results.

The extent of the dissolved phase plume appears to be defined within the available area of investigation. The findings of the investigation are generally consistent with the flow of groundwater in this area. The plume is bounded by approximately Hawthorne Street to the south and along portions of Illinois Route 3 to the west. Both the Hartford Municipal Wells and sentinel wells have not been impacted by the LNAPL.

Based on historical general chemistry and natural attenuation data, the HWG proposes to reduce the 2008 sampling frequency for these parameters from quarterly to annually (4<sup>th</sup> quarter only). These modifications are based on the general consistency of groundwater concentration data over the course of monitoring. Future sampling of these parameters may be re-evaluated based on documented changes in groundwater concentration trends or the general conceptual site model.

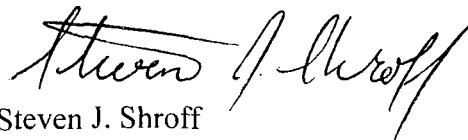
An evaluation of the historical groundwater analytical results indicates that, of the Skinner List metal parameters, only arsenic and lead have exhibited concentrations above comparison values (TACO Tier 1 GROs for Class I Groundwater) on a consistent, non-sporadic basis. Therefore, it is proposed that future quarterly monitoring groundwater samples be submitted for laboratory analysis of BTEX, MTBE, arsenic (total and dissolved), and lead (total and dissolved). Future annual sampling (4<sup>th</sup> Quarter) will also include general chemistry and natural attenuation parameters.

Messrs. Turner and Faryan  
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January 15, 2008  
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The new parameter list is proposed for implementation during the next quarterly monitoring sampling event (2nd Quarter 2008). This event will be conducted in accordance with the January 2006 *Dissolved Phase Groundwater Investigation Report*.

Please contact me with any questions.

Very truly yours,



Steven J. Shroff  
Project Manager

Encl.: Quarterly Groundwater Monitoring Report – October 2007

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## Executive Summary

## EXECUTIVE SUMMARY

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This October 2007 Quarterly Groundwater Monitoring Report, prepared for The Hartford Area Hydrocarbon Plume Site (Site) in Hartford, Illinois, focused on monitoring conditions along the perimeter of the dissolved phase plume in northern Hartford.

The Site geology consists of alternating alluvial deposits of clay and silt. This alluvium overlies alluvial sands and sandy glacial outwash that ranges from 60 to 130 feet thick and is known, locally, as the Main Sand. The overlying permeable zones within the alluvium are locally known (in descending order) as the North Olive, the Rand and the EPA Strata. These deposits are overlain and bounded by several clay deposits identified (in descending order) as the A Clay Stratum, which overlies the entire Site, and localized deposits of the B Clay, the C Clay and the D Clay Strata. The regionally extensive Main Sand underlies the fine-grained alluvial deposits.

Gauging results indicated that light non-aqueous phase liquid (LNAPL) was primarily found in the combined EPA and Main Sand Strata, and was limited in Hartford to south of Rand Avenue, east of Illinois State Route 3 and north of East Maple Street. A localized identification of LNAPL was present in the Rand Stratum at the northeast corner of the Site. The extent of the dissolved phase hydrocarbon plume is defined within the available area of investigation.

The sentinel wells have not been impacted by the LNAPL underlying northern Hartford. In addition, BTEX or MTBE constituents were not detected at quantifiable concentrations or detected above applicable TACO Tier 1 GROs for Class I groundwater.

Groundwater analytical results along the southern and western boundary of the interpreted extent of the Rapid Optical Screening Tool (ROST) response showed no indications of dissolved phase hydrocarbons, with the exception of HMW-38C (northwest corner of Site) and HMW-43C (southeast corner of Site), located adjacent to the extent of the ROST response. Groundwater analytical results along the northern (HMW-49 series) and eastern (HMW-50C) boundaries of the Site, and at HMW-38C and HMW-43C, indicate the presence of dissolved phase hydrocarbon concentrations above groundwater comparison values. The groundwater analytical results revealed that methyl tert-butyl ether (MTBE) was detected in HMW-49C and HMW-49D at concentrations above the comparison value.

## Section 1

## **SECTION ONE**

### **Introduction**

This Quarterly Groundwater Monitoring Report, prepared for The Hartford Area Hydrocarbon Plume Site (Site) in Hartford, Illinois (Figure 1) focused on monitoring conditions along the perimeter of the dissolved phase plume which has formed as a result of the presence of light non-aqueous phase liquid (LNAPL) in northern Hartford (Clayton, 2006). This report also includes the evaluation of the sentinel wells. The five sentinel wells (HMW-25 through HMW-29) were installed to monitor for the possible migration of LNAPL or associated dissolved phase constituents toward the Hartford Well Head Protection Area (WHPA). The LNAPL is located within northern Hartford. The WHPA is the surface area near the two active Hartford municipal water supply wells, which are located in the southwestern portion of Hartford (McGuire et al. 2001). According to McGuire, et al. (2001), the WHPA may provide recharge to the aquifer over a five-year period. Figure 2 shows the location of all the monitoring wells, including the sentinel wells, the Hartford municipal water supply wells, and the WHPA.

This report was prepared by URS Corporation (URS), on behalf of the Hartford Working Group (HWG). The HWG is comprised of the Atlantic Richfield Company (Atlantic Richfield), The Premcor Refining Group Inc. (Premcor), Shell Oil Products US (Shell), and Sinclair Oil Corporation (Sinclair)<sup>1</sup>. The monitoring and reporting was done in accordance with the monitoring program presented in Clayton's (2006) *Dissolved Phase Groundwater Investigation Report* and the monitoring program developed under Paragraph 47 of the Administrative Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) in the Matter of The Hartford Area Hydrocarbon Plume Site (Docket No. R7003-5-04-001) (USEPA undated). Paragraph 47 of the AOC required that the five sentinel wells be sampled quarterly for one year, in accordance with the *Sentinel Wells Work Plan* approved by the USEPA on November 21, 2003 (Clayton 2003).

<sup>1</sup> Sinclair Oil Corporation has commenced litigation seeking to rescind its agreement to participate in work, including this quarterly report, being performed by HWG under the *Administrative Order on Consent: In the Matter of The Hartford Area Hydrocarbon Plume Site*, Docket No. R7003-5-04-001 and has suspended participation in HWG activities. The lawsuit is currently pending. (See: *Sinclair v. The Premcor Refining Group Inc., et al.*, No. 06-CH-1346, (Madison County))



## SECTION ONE

### Introduction

Bureau Veritas North America, Inc. (formerly Clayton Group Services, Inc.) (BVNA) conducted the quarterly groundwater sampling and evaluation from December 2003 to April 2007. URS began conducting the sampling during the July 2007 sampling event.

The hydrogeology in the northernmost area of Hartford consists of four hydrostratigraphic units identified in descending order as the North Olive, the Rand and the EPA Strata, all of which overlie the Main Sand. The Main Sand has been subdivided into Main Silt and Main Sand based on its composition (i.e., percentage of silt versus sand content). These four hydrostratigraphic units are overlain and bounded by several clay deposits identified (in descending order) as the A Clay, B Clay, C Clay, and D Clay. The A Clay forms the surface layer over the entirety of northern Hartford while the B Clay separates the North Olive and Rand Strata. Scattered areas of fill are present within the A Clay. The C Clay separates the Rand and EPA Strata, and the D Clay separates the EPA Stratum and the Main Sand. More detailed information on the hydrostratigraphic units at the Site is provided in the December 2005 *LNAPL Active Recovery System Conceptual Site Model* (Clayton, 2005) and the January 2006 *Dissolved Phase Groundwater Investigation Report* (Clayton, 2006).

Quarterly groundwater sampling of existing wells (that do not contain LNAPL) within the four hydrostratigraphic units in Hartford has been on-going since December 2003. As wells have been installed as part of investigative activities from 2004 through 2006, they have been incorporated into the quarterly monitoring program. As proposed in the *Dissolved Phase Groundwater Investigation Report* (Clayton, 2006), a select number of monitoring wells continue to be sampled and analyzed on a quarterly basis to monitor conditions along the perimeter of the dissolved phase plume. An additional select number of monitoring wells are sampled and analyzed on an annual basis. The quarterly sampling includes selected wells screened in the Rand, EPA and Main Sand Strata, located beyond the interpreted extent of free product. The annual sampling includes selected wells, if free of LNAPL, throughout northern Hartford. Wells in the North Olive Stratum are included in both the quarterly and annual groundwater-sampling programs; however, as water in this unit is seasonal or ephemeral and occurs as isolated areas of perched water, groundwater is typically not present during sampling events. A list summarizing the wells included in quarterly sampling is provided in Table 1 and the well locations are shown in Figure 2.



## **SECTION ONE**

### **Introduction**

This report presents the results of the fourth quarter groundwater monitoring activities performed October 9 through 18, 2007. A discussion of the comprehensive well gauging, groundwater sample collection, groundwater analytical results, and conclusions is presented in Sections 2.0 through 5.0, respectively. Recommendations and future activities are presented in Section 6.0 and references are presented in Section 7.0.



## SECTION TWO

### Well Gauging

Monitoring well gauging was conducted to determine groundwater depths and LNAPL specific thickness (Do) (if present) in order to determine groundwater flow directions and delineate the current horizontal extent of gauged LNAPL. Do is defined as the specific thickness of LNAPL, which is representative of the amount of LNAPL in a formation. Do is a normalized volume of LNAPL (ft<sup>3</sup>/ft<sup>2</sup>) per unit surface area but is expressed as a thickness (in units of feet). Mapping of apparent LNAPL thicknesses measured in monitoring wells at a site with varying soil and LNAPL type is not an accurate depiction of LNAPL extent or magnitude. In order to provide an estimate of the actual LNAPL in the subsurface, "LNAPL specific thickness" is calculated to estimate the true amount of LNAPL in the formation.

The gauging was performed at wells installed in the North Olive, Rand, EPA, and Main Sand Strata. Gauged monitoring wells were located in the Village of Hartford, the Shell Rand Avenue site, the Shell Tannery Property, and the Premcor Facility. The Shell sites are located immediately northeast and east of the northern half of Hartford, while the Premcor Facility is located immediately east of the central portion of Hartford. URS gauged the Hartford site monitoring wells, the Shell Rand Avenue, and the Shell Tannery property monitoring wells, while Bureau Veritas gauged the monitoring wells located on the Premcor Facility. As part of the well gauging event, the Mississippi River elevation (at the Premcor Mississippi River Dock) was surveyed by CMT, Inc. on October 9, 2007.

Gauged monitoring wells were inspected and evaluated with respect to their continued suitability for groundwater monitoring. The wells were determined to be in satisfactory condition for continued use in the monitoring program. The results of the monitoring well inspections are included in Appendix A.

The October 2007 groundwater and LNAPL gauging data from Hartford are summarized in Table 2. Monitoring well gauging data for the Shell wells and the wells on the Premcor Facility are summarized in Tables 3 and 4, respectively. An October 2007 groundwater elevation map was created for the North Olive Stratum and is presented in Figure 3. Groundwater flow maps, constructed for the October 2007 gauging event for the Rand, combined EPA and Main Sand, and Main Sand Strata, are presented in Figures 4, 5, and 6, respectively. The area of LNAPL presence, in all strata, is shown in Figure 2. A discussion of the LNAPL extent and specific thickness, including figures, is presented below and in Appendix B. A discussion of the groundwater gauging data is presented below.



## **SECTION TWO**

### **Well Gauging**

Groundwater within the North Olive Stratum, which is potentially seasonal or ephemeral, occurs as isolated areas of perched water on the surface of the underlying B Clay Stratum in Hartford. Historical data has not indicated any significant areas of continually perched water in this stratum. The October 2007 well gauging for the North Olive Stratum revealed that the locations where groundwater was encountered were generally scattered with only small, localized areas that contained water levels above the stratum base. Therefore, the groundwater map created for the North Olive Stratum presents only the elevation data where groundwater was present and the saturated thickness above the stratum base (Figure 3).

Groundwater within the Rand Stratum in Hartford is also considered to represent localized areas of potentially seasonal or ephemeral perched water on the surface of the underlying C Clay Strata. Groundwater in the Rand Stratum appears to be confined northeast of Hartford at the Shell sites, as this is the only area where the Rand Stratum was extensively saturated. Therefore, the groundwater flow map created for the Rand Stratum, in general, does not contour elevation data for monitoring well locations south of Birch Street. The October 2007 groundwater flow map indicates the presence of a groundwater mound located northeast of the Site (Figure 4). Groundwater flows radially away from this mound. Groundwater from this mound extends and flows southwest into the Village and is controlled by the topography of the base of the Rand Stratum.

Groundwater within the EPA Stratum is generally confined and hydraulically connected to the Main Sand in northeastern Hartford, on the Shell Tannery Property, the Shell Rand Avenue Site, and the Premcor Facility. The October 2007 groundwater flow map of the combined EPA and Main Sand Strata indicates the presence of a groundwater divide, located northeast of the Site, trending along a general northwest/southeast axis (Figure 5). Groundwater on the eastern side of the divide flows in a northeasterly direction while flow on the western side of the divide is in a southwesterly direction. As the southwesterly flow reaches beyond the extent of the D Clay Stratum, a portion of groundwater is captured in the west portion of the Premcor Facility (which includes Premcor Production Well P-2 and P-6, screened between approximately 84 to 114 feet below ground surface [bgs] in the Main Sand, and Shallow Pumping Well RPW-01 screened between approximately 32 to 72 feet bgs in the EPA Stratum and the Main Sand). A groundwater convergence zone occurs along the western extent of the D Clay Stratum extending northwest from Hawthorne Street near Premcor Production Well P-2 to Rand Avenue.



## **SECTION TWO**

### **Well Gauging**

The October 2007 groundwater flow map for the Main Sand indicates the flow direction underlying Hartford was primarily northeasterly with localized variable flow directions in the vicinity of and towards Production Wells P-1/P-2 and Shallow Pumping Well RPW-01 located in the northwestern portion of the Premcor Facility, north of East Hawthorne Street (Figure 6). Hartford Municipal Well #4 was in operation at the time of the October gauging.

The approximate extent of LNAPL, the apparent product thickness, and the LNAPL specific thickness ( $D_o$ ) (Clayton 2005) were determined, where present, for wells installed in each of the four hydrostratigraphic units (a discussion of  $D_o$  and how it is calculated is provided in Appendix B):

- The North Olive Stratum well gauging data did not indicate the presence of measurable LNAPL (Figure B-1). Historically, measurable LNAPL has not been detected in wells gauged in the North Olive Stratum.
- The Rand Stratum well gauging data indicated the presence of LNAPL at four wells (Figure B-2):
  - HMW-48B (located between East Birch Street and East Rand Avenue, along North Olive Street) with an apparent product thickness of 0.01 feet and a LNAPL specific thickness of 0.001 feet;
  - MP-29C (located just north of East Birch Street on North Market Street) with an apparent product thickness of 3.07 feet and a LNAPL specific thickness of 0.65 feet;
  - MP-85B (located in the intersection of East Birch Street and North Olive Street) with an apparent product thickness of 0.67 feet and a LNAPL specific thickness of 0.05 feet;
  - MP-37C (located between North Market Street and North Olive Street, along Cherry Street) with an apparent product thickness of 0.02 feet and a LNAPL specific thickness of 0.002 feet.
- The combined EPA and Main Sand Strata well gauging data (Figure B-3) indicated LNAPL was detected at 60 wells, with an apparent product thickness ranging from 0.01 to 3.40 feet and a LNAPL specific thickness ranging from 0.001 feet to 0.79 feet.

## **SECTION TWO**

### **Well Gauging**

In October 2007, the approximate extent of LNAPL in the combined EPA and Main Sand Strata was limited in Hartford to south of Rand Avenue, east of Illinois State Route 3, and north of East Maple Street.

- The Main Sand below the D Clay well data did not indicate the presence of measurable LNAPL (Figure B-4). Historically, measurable LNAPL has not been detected in wells gauged in the Main Sand below the D Clay.

These findings regarding approximate extent of LNAPL, the apparent product thickness, and the LNAPL specific thickness are consistent with historical results.



## **SECTION THREE**

### **Groundwater Sample Collection**

Quarterly groundwater samples were collected from 28 wells (including the five Sentinel Wells) during the fourth quarter of 2007. None of the wells installed in the North Olive Stratum were sampled due to the absence of groundwater in this unit. A limited number of wells completed in the Rand and EPA Strata were able to be sampled due to the units' limited presence in the area, the presence of free product in some wells, and/or wells being dry or having limited available water. The majority of the wells included in quarterly sampling are in the Main Sand. A summary list of wells included in the quarterly groundwater sampling and their sampling status as of fourth quarter 2007 is provided in Table 1.

Fourth quarter 2007 groundwater sample collection activities were conducted October 9 through 18, 2007 for the following monitoring wells:

- Rand Stratum well HMW-50A
- EPA Stratum wells HMW-49C and HMW-50B
- Main Sand wells HMW-25, HMW-26, HMW-27, HMW-28, HMW-29, HMW-38C, HMW-39B, HMW-39C, HMW-40C, HMW-43C, HMW-44D, HMW-47C, HMW-48D, HMW-49D, HMW-50C, HMW-52C, HMW-53C, HMW-54C, MP-59C, MP-78D, MP-81C, MP-83C, MP-85D, MP-89C, and MP-92D.

Sixty-four wells included in the annual groundwater sampling program were not sampled in October 2007 because they were dry-

- HMW-38A, HMW-43B, HMW-54A, MP-33B, MP-33C, MP-40A, MP-40B, MP-44A, MP-44B, MP-44C, MP-52A, MP-52B, MP-58A, MP-59B, MP-78B, MP-81A, MP-81B, MP-83A, MP-83B, and MP-89B;

Contained an insufficient amount of water for sampling-

- HMW-38B, HMW-39A, HMW-40A, HMW-40B, HMW-43A, HMW-44A, HMW-44B, HMW-45A, HMW-45B, HMW-47A, HMW-47B, HMW-48A, HMW-49A, HWM-49B, HMW-52A, HMW-52B, HMW-53A, HMW-89A, MP-33A, MP-48A, MP-48B, MP-58B, MP-59A, MP-78A, MP-78C, MP-85A, MP-86A, MP-86B, and MP-92C;

Or contained product-



## SECTION THREE

### Groundwater Sample Collection

- HMW-44C, HMW-45C, HMW-48B, HMW-48C, HMW-53B, HMW-54B, MP-33D, MP-40C, MP-44D, MP-48C, MP-52C, MP-58C, MP-85B, MP-85C, and MP-86C.

Monitoring well purging and sampling were performed using dedicated low-flow sampling pumps and polypropylene tubing, in accordance with URS' low flow groundwater sampling Standard Operating Procedure (SOP), where applicable (Appendix C). A peristaltic pump and/or bailer were used for purging and sampling at locations where low-flow purging/sampling was not applicable. Upon collection, groundwater samples were placed in laboratory-supplied, pre-preserved (if appropriate) containers. After collection, samples were immediately labeled, placed in a cooler containing ice and delivered under chain of custody procedures to Teklab, Inc. in Collinsville, Illinois for laboratory analysis. The purged groundwater removed from each well was temporarily stored in a tank, equipped with secondary containment and located in a secure area within the Village of Hartford before removal by a waste disposal contractor.

Water quality indicator parameters including temperature, pH, oxidation-reduction potential, dissolved oxygen, turbidity, and specific conductivity were electronically measured and recorded using a calibrated Mini-Troll with an associated Pocket PC (in addition to the field logbook) during purging and prior to low-flow sampling. The downloaded data logger indicator parameter records for the October 2007 event are included in Appendix D.

Quarterly groundwater samples were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), MTBE, Skinner List Metals (total and dissolved) along with general chemistry and natural attenuation parameters, as described in Clayton's (2006) *Dissolved Phase Groundwater Investigation Report*. The practical quantitation limits and analytical methods are presented in Table 5. The containers with applicable preservation requirements (if appropriate) for each parameter are presented in Table 6.





## **SECTION FOUR**

## **Groundwater Analytical Results**

In October 2007, the fourth quarter groundwater sampling included a total of 28 wells. Eighteen of the wells sampled during the October 2007 quarterly event were located within the interpreted extent of free product ROST response, and the remaining ten wells were located beyond the extent of free product ROST response. The 28 wells sampled did not contain LNAPL, as verified through groundwater gauging efforts.

Groundwater quality values listed in 35 Illinois Administrative Code (IAC) Part 742 (Tiered Approach to Corrective Action Objectives [TACO] Tier 1 Groundwater Remediation Objectives [GROs] for Class I groundwater [Illinois Pollution Control Board, 1997]) was used as comparison values only for evaluating the October 2007 groundwater analytical results. These results were consistent with historical trends. The October 2007 results for BTEX and MTBE, Skinner List Metals, General Chemistry, and Natural Attenuation Parameters and Indicator Parameters are provided in Tables 7 through 10, respectively. Summaries of the fourth quarter 2007 groundwater analytical results (BTEX, MTBE, total lead, and dissolved lead concentrations) for the Rand Stratum, EPA Stratum and Main Sand are presented in Figures 7, 8, and 9, respectively. A discussion of the October 2007 results for BTEX, MTBE and Skinner List Metals (total and dissolved) is presented below.

No detectable concentrations of BTEX constituents or MTBE were present in the samples collected from fourteen of the 28 wells samples (including all the sentinel wells): Rand Stratum well HMW-50A, EPA Stratum well HMW-50B and Main Sand wells HMW-25, HMW-26, HMW-27, HMW-28, HMW-29, HMW-39C, HMW-40C, HMW-52C, MP-81C, MP-89C, MP-92D, and HMW-39B (screened in the B/C Clay).

Benzene was detected in 14 of the 28 wells. One Main Sand well, HMW-54C (2.5 µg/L), contained concentrations of benzene below the comparison value (5 µg/L). Benzene was detected at concentrations above the comparison values in the following 13 wells, which were all located inside the boundaries of the ROST Response: EPA Stratum well HMW-49C (616 µg/L) and Main Sand wells HMW-38C (187 µg/L), HMW-43C (21.6 µg/L), HMW-44D (131 µg/L), HMW-47C (7,220 µg/L), HMW-48D (1,110 µg/L), HMW-49D (949 µg/L), HMW-50C (121 µg/L), HMW-53C (84 µg/L), MP-59C (21,400 µg/L), MP-78D (14,900 µg/L), MP-83C (11,400 µg/L), and MP-85D (4,780 µg/L).



## SECTION FOUR

## Groundwater Analytical Results

The remaining BTEX constituents (toluene, ethyl benzene, and xylenes) were detected below the respective comparison values in Main Sand wells HMW-38C, HMW-43C, HMW-44D, HMW-49D, HMW-53C, HMW-54C, HMW-50C, and MP-85D. The remaining BTEX constituents (toluene, ethyl benzene, and xylenes) were detected at concentrations above the comparison values in the following five wells, which were all located inside the boundaries of the ROST Response: EPA Stratum well HMW-49C and Main Sand wells HMW-47C, MP-59C, MP-78D, and MP-83C.

MTBE was detected in five of the 28 wells. Two Main Sand wells, HMW-50C (41.6 µg/L), and HMW-38C (2.1 µg/L) contained concentrations of MTBE below the comparison value (70 µg/L). The samples from EPA Stratum well HMW-49C (388 µg/L) and Main Sand wells HMW-49D (79.3 µg/L), and HMW-47C (170 µg/L), contained concentrations of MTBE above the comparison value (70 µg/L). Historically, MTBE has not been associated with the LNAPL in northern Hartford.

A total of 13 metals (antimony, arsenic, barium, cadmium, chromium, cobalt, iron, lead, nickel, selenium, silver, vanadium, and zinc) were detected in the samples from the 28 wells collected in October 2007. Four of the metals (arsenic, iron, lead, and selenium) were present at concentrations above comparison values:

- Total and dissolved arsenic was present above the comparison value [0.05 (mg/L)] in samples from Main Sand Stratum well MP-59C (0.0839 mg/L and 0.0859 mg/L).
- Total iron was present in samples from eighteen wells at concentrations above the comparison value (5 mg/L): EPA Stratum well HMW-49C (23 mg/L); and Main Sand Stratum wells HMW-26, HMW-38C, HMW-39C, HMW-43C, HMW-44D, HMW-47C, HMW-48D, HMW-49C, HMW-49D, HMW-52C, HMW-54C, MP-59C, MP-78D, MP-89C, MP-85D, MP-89C, and MP-92D (ranging from 5.14 to 32.3 mg/L).
- Dissolved iron was present in samples from seventeen wells at concentrations above the comparison value (5 mg/L): EPA Stratum well HMW-49C (19.2 mg/L); and Main Sand Stratum wells HMW-26, HMW-38C, HMW-39C, HMW-43C, HMW-44D, HMW-47C, HMW-48D, HMW-49C, HMW-49D, HMW-52C, HMW-54C, MP-59C, MP-78D, MP-89C, MP-85D, and MP-92D (ranging from 5.16 mg/L to 34.2 mg/L).
- Total lead was present in samples from three wells at concentrations above the



## SECTION FOUR

## Groundwater Analytical Results

comparison value (0.0075 mg/L): EPA Stratum well HMW-49C (0.0214 mg/L) and Main Sand Stratum wells HMW-47C (0.0146 mg/L), and HMW-59C (0.0386 mg/L).

- Dissolved lead was present in samples from three wells at concentrations above the comparison value (0.0075 mg/L) EPA Stratum well HMW-49C (0.015mg/L) and Main Sand Stratum wells HMW-47C (0.01 mg/L), and HMW-59C (0.0318mg/L).
- Dissolved selenium was present above the comparison value (0.05 mg/L) in the sample from Main Sand Stratum well MP-89C (0.0595 mg/L).

A qualified chemist conducted a data review on the laboratory samples and the Quality Assurance/Quality Control samples from this monitoring event. This review revealed no concerns with the data.

As part of the Site investigation, quarterly groundwater sampling of existing wells (without LNAPL) has been ongoing since December 2003. As wells were installed as part of investigative activities they were incorporated into the former quarterly monitoring program. The inclusive data set for December 2003 through October 2007 consists of a total of 107 different wells (63 Main Sand wells, 10 EPA Stratum wells, 30 Rand Stratum wells, and 4 North Olive Stratum wells). Summary tables presenting the previous four quarters of historic groundwater analytical results for BTEX constituents and MTBE, metals (total and dissolved), and general chemistry and natural attenuation parameters, are presented in Appendix E for reference. Figures illustrating the historic summary of groundwater analytical results (benzene, MTBE, total BTEX, total SVOCs, total lead, and dissolved lead) for each hydrostratigraphic unit, inclusive of the October 2007 quarterly results, are provided in Appendix F.



## **SECTIONFIVE**

## **Conclusions**

The fourth quarter 2007 groundwater gauging and sampling activities conducted in October focused on monitoring conditions along the perimeter of the dissolved phase plume. LNAPL was identified primarily in the combined EPA and Main Sand Strata (Appendix B). The extent of LNAPL in the combined EPA and Main Sand Strata was primarily north of East Maple Street, east of Illinois State Route 3 and south of Rand Avenue. The extent of LNAPL was limited to four wells in the Rand Stratum (HMW-48B, MP-29C, MP-37C, and MP-85B), located in the northeast corner of the Site. No measurable LNAPL was present in the North Olive Stratum or the Main Sand Stratum below the D Clay.

The conclusions drawn from the fourth quarter 2007 activities are consistent with Clayton's (2006) *Dissolved Phase Groundwater Investigation Report*. The extent of the dissolved phase hydrocarbon plume is defined within the available area of investigation.

The following findings are consistent with groundwater flow in the Main Sand, which, based on a review of both historical and October 2007 flow mapping data, has consistently been northerly:

- The groundwater analytical results along the southern and western boundaries of the interpreted extent of the ROST response did not indicate the presence of dissolved phase hydrocarbons.
- The groundwater analytical results along the northern and eastern boundaries of the Site indicated the presence of dissolved phase hydrocarbon concentrations above applicable groundwater comparison values.
- The sentinel wells have not been impacted by the LNAPL underlying northern Hartford. BTEX or MTBE constituents were not detected at quantifiable concentrations or detected above applicable TACO Tier 1 GROs for Class I groundwater. The conclusion is also based on the groundwater flow mapping of the Main Sand, which shows flow in the area of the LNAPL plume in northern Hartford is to the northeast, away from the Hartford WHPA and the Hartford municipal water supply wells.



## **SECTION SIX**

## **Recommendations and Future Activities**

In general, routine quarterly monitoring of the sentinel wells began in December 2003 and routine quarterly monitoring of a subset of the village wide monitoring wells began in January 2005 and included BETX, MTBE, Skinner List total metals, Skinner List dissolved metals, and general chemistry (other parameters such as SVOCs were also analyzed during this period). Natural attenuation parameters were included beginning in July 2005.

Based on the historical general chemistry and natural attenuation data, the HWG proposes to reduce the sampling frequency for these parameters from quarterly to annually (4th quarter only). These modifications are based on the general consistency of groundwater concentration data over the course of monitoring. Future sampling of these parameters may be re-evaluated based on documented changes in groundwater concentration trends or the general conceptual site model.

An evaluation of the historical groundwater analytical results indicates that, of the Skinner List metal parameters, only arsenic and lead have exhibited concentrations above comparison values (TACO Tier 1 GROs for Class I Groundwater) on a consistent, non-sporadic basis. Therefore, the HWG proposes future quarterly monitoring groundwater samples be submitted for laboratory analysis of BTEX, MTBE, arsenic (total and dissolved) and lead (total and dissolved).

The new parameter list is proposed for implementation during the next quarterly groundwater monitoring sampling event (currently scheduled for January 2008). This event will be conducted in accordance with the January 2006 Dissolved Phase Groundwater Investigation Report (Clayton, 2006). A well gauging event will also be conducted for the Hartford, Shell and Premcor groundwater monitoring wells at that time.



## **SECTION SEVEN**

## **References**

Bureau Veritas North America, Inc., June 22, 2007. *Quarterly Groundwater Monitoring Report, April 2007, The Hartford Area Hydrocarbon Plume Site, Hartford, Illinois.*

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Illinois Pollution Control Board, 1997. *Tiered Approach to Corrective Action Objectives: 35 IAC Part 742.* Adopted rule, Final Order June 5, 1997. Last amended February 15, 2007.

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**Quarterly Groundwater Monitoring Report (October 2007)**  
**The Hartford Working Group / Hartford, IL**

**Tables**

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**TABLE 1**  
**Ocotober 2007 GROUNDWATER SAMPLING WELL LIST**  
*The Hartford Area Hydrocarbon Plume Site*

**1190505040 -- Madison County -- ILR000128249**  
**The Hartford Working Group / Hartford, IL**

WELL LOCATIONS	STRATUM SCREENED	SENTINEL WELL QUARTERLY SAMPLING	QUARTERLY SAMPLING	ANNUAL SAMPLING
HMW-25	Main Sand	S		
HMW-26	Main Sand	S		
HMW-27	Main Sand	S		
HMW-28	Main Sand	S		
HMW-29	Main Sand	S		
HMW-38A	N. Olive			NS
HMW-38B	B/C Clay (PL in B/C Clay)			NS
HMW-38C	Main Sand			S
HMW-39A	Main Silt (Rand Horizon)		NS	
HMW-39B	Main Silt (Rand Horizon)		S	
HMW-39C	Main Sand		S	
HMW-40A	A Clay		NS	
HMW-40B	Main Sand		NS	
HMW-40C	Main Sand		S	
HMW-43A	N. Olive			NS
HMW-43B	B/C Clay (PL in B/C Clay)			NS
HMW-43C	Main Sand			S
HMW-44A	N. Olive			NS
HMW-44B	Rand			NS
HMW-44C	Main Sand			P
HMW-44D	Main Sand (below LNAPL)			S
HMW-45A	N. Olive			NS
HMW-45B	Rand			NS
HMW-45C	Main Sand			P
HMW-47A	N. Olive			NS
HMW-47B	B/C Clay (PL in B/C Clay)			NS
HMW-47C	Main Sand			S
HMW-48A	N. Olive			NS
HMW-48B	Rand			P
HMW-48C	EPA			P
HMW-48D	Main Sand (below D Clay)			S
HMW-48E	NI			NI
HMW-49A	N. Olive		NS	
HMW-49B	B/C Clay (PL in B/C Clay)		NS	
HMW-49C	EPA		S	
HMW-49D	Main Sand (below D Clay)		S	
HMW-50A	Rand		S	
HMW-50B	EPA		S	
HMW-50C	Main Sand (below D Clay)		S	
HMW-52A	Main Silt (N. Olive Horizon)		NS	
HMW-52B	Main Silt (Rand Horizon)		NS	
HMW-52C	Main Sand		S	
HMW-53A	N. Olive			NS
HMW-53B	Main Silt (Rand Horizon) / Main Sand			P

**TABLE 1**  
**Ocotober 2007 GROUNDWATER SAMPLING WELL LIST**  
*The Hartford Area Hydrocarbon Plume Site*

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**The Hartford Working Group / Hartford, IL**

WELL LOCATIONS	STRATUM SCREENED	SENTINEL WELL QUARTERLY SAMPLING	QUARTERLY SAMPLING	ANNUAL SAMPLING
HMW-53C	Main Sand (below LNAPL)			S
HMW-54A	N. Olive			NS
HMW-54B	Main Sand			P
HMW-54C	Main Sand (below LNAPL)			S
HMW-55A	NI		NI	
HMW-55B	NI		NI	
HMW-55C	NI		NI	
HMW-55D	NI		NI	
HMW-56A	NI		NI	
HMW-56B	NI		NI	
HMW-56C	NI		NI	
HMW-56D	NI		NI	
HMW-56E	NI		NI	
MP-33A	A Clay			NS
MP-33B	N. Olive			NS
MP-33C	Rand			NS
MP-33D	Main Sand			P
MP-40A	A Clay (PL in A Clay)			NS
MP-40B	Main Silt (Rand Horizon)			NS
MP-40C	Main Sand			P
MP-44A	A Clay			NS
MP-44B	N. Olive			NS
MP-44C	Rand			NS
MP-44D	Main Sand			P
MP-48A	N. Olive			NS
MP-48B	Main Silt (Rand Horizon)			NS
MP-48C	Main Sand			P
MP-52A	A Clay (PL in A Clay)			NS
MP-52B	Rand			NS
MP-52C	Main Sand			P
MP-58A	A Clay			NS
MP-58B	Main Silt (Rand Horizon)			NS
MP-58C	Main Sand			P
MP-59A	A Clay			NS
MP-59B	Main Silt (Rand Horizon)			NS
MP-59C	Main Sand			S
MP-78A	A Clay			NS
MP-78B	N. Olive			NS
MP-78C	Rand			NS
MP-78D	Main Sand			S
MP-81A	A Clay (PL in A Clay)		NS	
MP-81B	Main Silt (Rand Horizon)		NS	
MP-81C	Main Sand		S	
MP-83A	N. Olive			NS
MP-83B	Rand			NS

**TABLE 1**  
**Ocotober 2007 GROUNDWATER SAMPLING WELL LIST**  
*The Hartford Area Hydrocarbon Plume Site*

**1190505040 -- Madison County -- ILR000128249**  
**The Hartford Working Group / Hartford, IL**

WELL LOCATIONS	STRATUM SCREENED	SENTINEL WELL QUARTERLY SAMPLING	QUARTERLY SAMPLING	ANNUAL SAMPLING
MP-83C	Main Sand			S
MP-85A	N. Olive			NS
MP-85B	Rand			P
MP-85C	EPA			P
MP-85D	Main Sand (below D Clay)			S
MP-86A	A Clay (PL in A Clay)			NS
MP-86B	Main Silt (Rand Horizon)			NS
MP-86C	Main Sand			P
MP-89A	A Clay (PL in A Clay)		NS	
MP-89B	Main Silt (Rand Horizon)		NS	
MP-89C	Main Sand		S	
MP-92C	N. Olive		NS	
MP-92D	Main Silt (Rand Horizon) / Main Sand		S	

**NOTES:**

MP-92 A & B are probes which are not constructed to allow groundwater sampling

S = Well sampled

NS = Well not sampled due to being dry or containing an insufficient amount of water for sampling

P = Well not sampled due to product present

NI = Well proposed to be installed and included in future sampling

PL = Permeable Lens

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	D <sub>O</sub> (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation - Total Well Depth (TOC) (ft.)	Comments	
HB-16	Main	1/10/2007	431.42	35.10	36.40	396.32	395.02	1.30	0.13	396.02	40.50	390.92		
		4/10/2007	431.42	31.79	32.76	399.63	398.66	0.97	0.08	399.41				
		7/10/2007	431.42	31.65	31.70	399.77	399.72	0.05	0.01	399.76				
		10/9/2007	431.42	33.45	33.84	397.97	397.58	0.39	0.03	397.88			TD not measured	
HB-30	Main	1/9/2007	431.08	34.80	396.28	396.28	0.25	0.02	396.28	35.05	396.03			
		4/10/2007	431.08	31.87	32.86	399.21	398.22	0.99	0.08	398.98			TD= January 2007	
		7/10/2007	431.08	31.21	32.48	399.87	398.60	1.27	0.13	399.58				
		10/9/2007	431.08	33.22	34.41	397.86	396.67	1.19	0.09	397.59			TD not measured	
HB-31	Main	1/10/2007	431.49	36.50	36.54	394.99	394.95	0.04	0.01	394.98	40.90	390.59		
		4/11/2007	431.49	31.89	31.95	399.60	399.54	0.06	0.01	399.59				
		10/9/2007	431.49	34.06	34.11	397.43	397.38	0.05	0.004	397.42			TD not measured	
HB-32	Main	1/9/2007	433.45	37.60	395.85	395.85	0.00	0.00	395.85	45.90	387.55			
		4/10/2007	433.45	34.00	399.45	399.45	0.00	0.00	399.45					
		7/10/2007	433.45	34.12	399.33	399.33	0.00	0.00	399.33					
		10/9/2007	433.45	36.08	397.37	397.37	0.00	0.00	397.37	45.91	387.54			
HB-33	Rand / C Clay / EPA / D Clay / Main Sand	1/10/2007	430.23	32.44	397.79	397.79	0.00	0.00	397.79	41.08	389.15			
		4/10/2007	429.46	32.44	396.46	396.46	0.00	0.00	396.46	6.18	423.28	DRY		
		7/10/2007	429.46	32.44	396.46	396.46	0.00	0.00	396.46			DRY		
		10/9/2007	429.46	32.44	396.46	396.46	0.00	0.00	396.46	6.32	423.14			
HB-37	Main	1/10/2007	431.77	35.64	35.86	396.13	395.91	0.22	0.02	396.08	38.32	393.45		
		4/10/2007	431.77	32.62	399.15	399.15	0.00	0.00	399.15					
		7/10/2007	431.77	32.07	399.70	399.70	0.00	0.00	399.70					
		10/9/2007	431.77	34.07	397.70	397.70	0.00	0.00	397.70	37.23	394.54			
HB-38	Main	1/9/2007	429.92	33.24	396.68	396.68	0.00	0.00	396.68	34.44	395.48			
		4/10/2007	429.92	30.23	399.69	399.69	0.00	0.00	399.69					
		7/10/2007	429.92	29.43	400.49	400.49	0.00	0.00	400.49					
		10/9/2007	429.92	31.52	398.40	398.40	0.00	0.00	398.40	34.55	395.37			
HMW-01	Rand	1/9/2007	429.94	22.64	407.30	407.30	0.00	0.00	407.30	22.85	407.09			
		4/10/2007	429.94	21.38	408.56	408.56	0.00	0.00	408.56					
		7/10/2007	429.94	22.06	407.88	407.88	0.00	0.00	407.88					
		10/9/2007	429.94	22.78	407.16	407.16	0.00	0.00	407.16	22.94	407.00			
HMW-02	Main	1/9/2007	429.65	33.91	35.23	395.74	394.42	1.32	0.13	395.44	36.55	393.10		
		4/10/2007	429.65	30.94	31.92	398.71	397.73	0.98	0.08	398.48				
		7/10/2007	429.65	29.69	31.80	399.96	397.85	2.11	0.38	399.47			Lid broken	
		10/9/2007	429.65	31.68	33.64	397.97	396.01	1.96	0.34	397.52			TD not measured	
HMW-03	EPA	1/9/2007	428.72	30.87	397.85	397.85	0.00	0.00	397.85	34.19	394.53			
		4/10/2007	428.72	27.41	401.31	401.31	0.00	0.00	401.31					
		7/10/2007	428.72	27.44	401.28	401.28	0.00	0.00	401.28					
		10/9/2007	428.72	30.28	398.44	398.44	0.00	0.00	398.44	34.21	394.51			
HMW-04	Rand	1/9/2007	428.96	15.97	15.99	412.99	412.97	0.02	0.01	412.99	25.58	403.38		
		4/10/2007	428.96	12.69	12.75	416.27	416.21	0.06	0.01	416.26				
		7/10/2007	428.96	15.51	15.53	413.45	413.43	0.02	0.01	413.45				
		10/9/2007	428.96	21.15	407.81	407.81	0.00	0.00	407.81	25.53	403.43			
HMW-07	Rand	1/9/2007	429.12	25.24	403.88	403.88	0.00	0.00	403.88	26.46	402.66			
		4/10/2007	429.12	25.14	403.98	403.98	0.00	0.00	403.98					
		7/10/2007	429.12	24.87	404.25	404.25	0.00	0.00	404.25					
		10/9/2007	429.12	25.44	403.68	403.68	0.00	0.00	403.68	26.43	402.69			

**TABLE 2**  
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*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
HMW-08	Main	1/9/2007	429.74	33.66	34.77	396.08	394.97	1.11	0.07	395.82	42.17	387.57		
		4/10/2007	429.74	30.11	30.89	399.63	398.85	0.78	0.06	399.45				
		7/10/2007	429.74	30.25	31.12	399.49	398.62	0.87	0.07	399.29				
		10/9/2007	429.74	32.02	33.69	397.72	396.05	1.67	0.24	397.33				TD not measured
HMW-09	N. Olive / B Clay / Rand	1/9/2007	430.23	23.16	23.16	407.07	0.00	0.00	407.07	33.19	397.04			
		4/10/2007	430.23	23.16	23.18	407.05	0.00	0.00	407.05					
		7/10/2007	430.23	23.16	23.13	407.10	0.00	0.00	407.10					
		10/9/2007	430.23	23.16	23.16	407.10	0.00	0.00	407.10	23.21	407.02	No Measurements; Well Dry		
HMW-10	Main	1/9/2007	430.20	34.03	35.46	396.17	394.74	1.43	0.16	395.84	43.06	387.14		
		4/10/2007	430.20	31.00	31.65	399.20	398.55	0.65	0.05	399.05				
		7/10/2007	430.20	30.35	32.19	399.85	398.01	1.84	0.28	399.43				
		10/9/2007	430.20	32.22	34.20	397.98	396.00	1.98	0.34	397.53				TD not measured
HMW-13	North Olive	1/9/2007	430.81	18.77	18.77	412.04	0.00	0.00	412.04	18.95	411.86			
		4/10/2007	430.81	18.76	18.76	412.05	0.00	0.00	412.05					
		7/10/2007	430.81	18.75	18.75	412.06	0.00	0.00	412.06					
		10/9/2007	430.81	18.75	18.75	412.06	0.00	0.00	412.06	18.94	411.87			
HMW-14	Rand / C Clay / Main Sand	1/10/2007	430.86	34.36	35.70	396.50	395.16	1.34	0.13	396.19	38.34	392.52		
		4/10/2007	430.86	31.09	31.80	399.77	399.06	0.71	0.06	399.61				
		7/10/2007	430.86	30.86	31.95	400.00	398.91	1.09	0.07	399.75				
		10/9/2007	430.86	32.80	34.31	398.06	396.55	1.51	0.19	397.71				TD not measured
HMW-18	Main	1/10/2007	431.58	35.15	36.29	396.43	395.29	1.14	0.07	396.17	40.98	390.60		
		4/10/2007	431.58	31.75	32.22	399.83	399.36	0.47	0.04	399.72				
		7/10/2007	431.58	31.58	32.20	400.00	399.38	0.62	0.05	399.86				
		10/9/2007	431.58	33.45	34.94	398.13	396.64	1.49	0.19	397.78	41.05	390.53		
HMW-19	Main	1/10/2007	431.80	35.11	36.22	396.69	395.58	1.11	0.07	396.43	40.95	390.85		
		4/10/2007	431.80	31.68	31.98	400.12	399.82	0.30	0.02	400.05				
		7/10/2007	431.80	31.55	32.00	400.25	399.80	0.45	0.04	400.15				
		10/9/2007	431.80	33.55	34.88	398.25	396.92	1.33	0.14	397.94	40.90	390.90		
HMW-20	Rand / C Clay / Main Sand	1/9/2007	430.65	34.55	35.31	396.10	395.34	0.76	0.06	395.93	38.78	391.87		
		4/10/2007	430.65	31.28	32.58	399.37	398.07	1.30	0.13	399.07				
		7/10/2007	430.65	30.60	32.55	400.05	398.10	1.95	0.35	399.60				
		10/9/2007	430.65	32.94	33.57	397.71	397.08	0.63	0.05	397.57				TD not measured
HMW-21	N. Olive / B Clay / Rand	1/9/2007	430.05	24.26	24.26	405.79	0.00	0.00	405.79	24.68	405.37			
		4/10/2007	430.05	23.08	23.08	406.97	0.00	0.00	406.97					
		7/10/2007	430.05	22.50	22.50	407.55	0.00	0.00	407.55					
		10/9/2007	430.05	23.75	23.75	406.30	0.00	0.00	406.30	24.68	405.37			
HMW-22	Main	1/10/2007	430.15	33.88	35.23	396.27	394.92	1.35	0.13	395.96	40.30	389.85		
		4/10/2007	430.15	30.64	30.99	399.51	399.16	0.35	0.02	399.43				
		7/10/2007	430.15	30.36	32.50	399.79	397.65	2.14	0.38	399.30				
		10/9/2007	430.15	32.53	33.67	397.62	396.48	1.14	0.08	397.35				TD not measured
HMW-25	Main	1/10/2007	427.45	29.84	29.84	397.61	0.00	0.00	397.61	35.14	392.31	TD = January 2006		
		4/10/2007	427.45	25.22	25.22	402.23	0.00	0.00	402.23					
		7/10/2007	427.45	25.88	25.88	401.57	0.00	0.00	401.57					
		10/9/2007	427.45	28.41	28.41	399.04	0.00	0.00	399.04	38.90	388.55			
HMW-26	Main	1/10/2007	425.20	28.00	28.00	397.20	0.00	0.00	397.20	35.59	389.61	TD = January 2006		
		4/10/2007	425.20	24.57	24.57	400.63	0.00	0.00	400.63					
		7/10/2007	425.20	23.66	23.66	401.54	0.00	0.00	401.54					
		10/9/2007	425.20	26.02	26.02	399.18	0.00	0.00	399.18	39.51	385.69			

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Total Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Total Well Depth (TOC) (ft)	Comments
HMW-27	Main	1/9/2007	430.51		34.40		396.11	0.00	0.00	396.11	35.03	395.48	
		4/10/2007	430.51		30.40		400.11	0.00	0.00	400.11			
		7/10/2007	430.51		29.93		400.58	0.00	0.00	400.58			(T 7/13/04-4/19/05)
		10/9/2007	430.51		31.20		399.31	0.00	0.00	399.31			TD not measured
HMW-28	Main	1/9/2007	430.97		33.38		397.59	0.00	0.00	397.59	36.02	394.95	TD = January 2006
		4/10/2007	430.97		29.79		401.18	0.00	0.00	401.18			
		7/10/2007	430.97		29.18		401.79	0.00	0.00	401.79			
		10/9/2007	430.97		31.48		399.49	0.00	0.00	399.49	36.61	394.36	
HMW-29	Main	1/9/2007	429.99		32.55		397.44	0.00	0.00	397.44	34.55	395.44	
		4/10/2007	429.99		29.79		400.20	0.00	0.00	400.20			
		7/10/2007	429.99		27.39		402.60	0.00	0.00	402.60			
		10/9/2007	429.13		29.19		399.94	0.00	0.00	399.94	34.50	394.63	
HMW-30	Rand / C Clay / Main Sand	1/9/2007	430.07	34.07	34.87	396.00	395.20	0.80	0.05	395.82	43.82	386.25	
		4/10/2007	430.07	30.53	31.01	399.54	399.06	0.48	0.03	399.43			
		7/10/2007	430.07	30.23	32.74	399.84	397.33	2.51	0.50	399.26			
		10/9/2007	430.07		32.54		397.53	0.00	0.00	397.53	43.83	386.24	
HMW-31	Rand / C Clay / Main Sand	1/9/2007	430.09	34.08	34.95	396.01	395.14	0.87	0.06	395.81	43.70	386.39	
		4/10/2007	430.09	30.66	30.78	399.43	399.31	0.12	0.007	399.40			
		7/10/2007	430.09	30.79	31.00	399.30	399.09	0.21	0.01	399.25			
		10/9/2007	430.09	32.68	33.10	397.41	396.99	0.42	0.03	397.31			TD not measured
HMW-32	Rand / C Clay / Main Sand	1/9/2007	430.01	34.03	34.63	395.98	395.38	0.60	0.04	395.84	43.45	386.56	
		4/10/2007	430.01	30.44	31.06	399.57	398.95	0.62	0.04	399.43			
		7/10/2007	430.01	30.56	31.28	399.45	398.73	0.72	0.04	399.28			
		10/9/2007	430.01	32.53	33.01	397.48	397.00	0.48	0.03	397.37			TD not measured
HMW-33	Rand / C Clay / Main Sand	1/9/2007	430.13	34.05	35.16	396.08	394.97	1.11	0.05	395.82	41.81	388.32	
		4/10/2007	430.13	30.51	31.67	399.62	398.46	1.16	0.08	399.35			
		7/10/2007	430.13	30.26	33.02	399.87	397.11	2.76	0.54	399.24			
		10/9/2007	430.13	32.41	34.20	397.72	395.93	1.79	0.26	397.31			TD not measured
HMW-34	Rand / C Clay / Main Sand	1/9/2007	429.83	33.60	35.02	396.23	394.81	1.42	0.16	395.90	44.00	385.83	
		4/10/2007	429.83	30.54	31.18	399.29	398.65	0.64	0.05	399.14			
		7/10/2007	429.83	29.96	31.68	399.87	398.15	1.72	0.25	399.47			
		10/9/2007	429.83	31.86	33.69	397.97	396.14	1.83	0.28	397.55			TD not measured
HMW-35	Rand / C Clay / Main Sand	1/9/2007	429.81	33.59	34.99	396.22	394.82	1.40	0.16	395.90	44.33	385.48	
		4/10/2007	429.81	30.58	31.13	399.23	398.68	0.55	0.05	399.10			
		7/10/2007	429.81	30.20	30.91	399.61	398.90	0.71	0.06	399.45			
		10/9/2007	429.81	32.07	33.00	397.74	396.81	0.93	0.06	397.53			TD not measured
HMW-36	Rand / C Clay / Main Sand	1/9/2007	429.91	33.70	34.91	396.21	395.00	1.21	0.10	395.93	44.25	385.66	
		4/10/2007	429.91	30.68	31.20	399.23	398.71	0.52	0.04	399.11			
		7/10/2007	429.91	30.03	31.91	399.88	398.00	1.88	0.32	399.45			
		10/9/2007	429.91	31.92	33.94	397.99	395.97	2.02	0.33	397.53			TD not measured
HMW-37	Rand / C Clay / Main Sand	1/9/2007	429.61	33.42	34.67	396.19	394.94	1.25	0.13	395.90	44.10	385.51	
		4/10/2007	429.61	30.41	31.15	399.20	398.46	0.74	0.06	399.03			
		7/10/2007	429.61	29.88	30.73	399.73	398.88	0.85	0.07	399.53			
		10/9/2007	429.61	31.65	33.29	397.96	396.32	1.64	0.22	397.58			TD not measured
HMW-38A	North Olive	1/10/2007	430.06								16.86	413.20	DRY, TD= January 2007
		4/10/2007	430.06										DRY
		7/10/2007	430.06										DRY
		10/9/2007	430.06								16.79	413.27	No Measurements; Well Dry

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)(B) Hydrocarbon Surface Elevation (ft)	(A)(C) Water Surface Elevation (ft)	(C)(B) Hydrocarbon Thickness (ft)	Do <sup>1</sup> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Wall Depth (TOC) (ft)	Total Depth Elevation from Well Depth (TOC)	Comments
HMW-38B	B/C Clay (PL in B/C Clay)	1/10/2007	429.93		25.13		404.80	0.00	0.00	404.80	25.24	404.69	
		4/10/2007	429.93		25.13		404.80	0.00	0.00	404.80			
		7/10/2007	429.93		25.13		404.80	0.00	0.00	404.80			(T 1/10/05-1/11/05)
		10/9/2007	429.93		25.04		404.89	0.00	0.00	404.89	25.17	404.76	
HMW-38C	Main	1/10/2007	430.23		34.41		395.82	0.00	0.00	395.82	42.56	387.67	
		4/10/2007	430.23		30.41		399.82	0.00	0.00	399.82			
		7/10/2007	430.23		31.17		399.06	0.00	0.00	399.06			(T 11/19/04)
		10/9/2007	430.23		33.09		397.14	0.00	0.00	397.14	42.49	387.74	
HMW-39A	Main Silt (Rand Horizon)	1/10/2007	426.46		20.35		406.11	0.00	0.00	406.11	20.60	405.86	
		4/10/2007	426.46		20.37		406.09	0.00	0.00	406.09			
		7/10/2007	426.46		20.34		406.12	0.00	0.00	406.12			
		10/9/2007	426.46		20.35		406.11	0.00	0.00	406.11	20.60	405.86	
HMW-39B	Main Silt (Rand Horizon)	1/10/2007	426.55		23.35		403.20	0.00	0.00	403.20	29.69	396.86	
		4/10/2007	426.55		22.89		403.66	0.00	0.00	403.66			
		7/10/2007	426.55		23.87		402.68	0.00	0.00	402.68			(T 1/12/05)
		10/9/2007	426.55		24.64		401.91	0.00	0.00	401.91	29.76	396.79	
HMW-39C	Main	1/10/2007	426.28		30.04		396.24	0.00	0.00	396.24	38.60	387.68	TD = January 2006
		4/10/2007	426.28		25.91		400.37	0.00	0.00	400.37			
		7/10/2007	426.28		26.51		399.77	0.00	0.00	399.77			(T 1/11/05-4/20/05)
		10/9/2007	426.28		28.65		397.63	0.00	0.00	397.63	35.78	390.50	
HMW-40A	A Clay	1/10/2007	425.01		12.96		412.05	0.00	0.00	412.05	13.18	411.83	
		4/10/2007	425.01		12.96		412.05	0.00	0.00	412.05			
		7/10/2007	425.01		12.98		412.03	0.00	0.00	412.03			
		10/9/2007	425.01		12.99		412.02	0.00	0.00	412.02	13.24	411.77	
HMW-40B	Main	1/10/2007	424.86		24.37		400.49	0.00	0.00	400.49	24.56	400.30	
		4/10/2007	424.86		24.34		400.52	0.00	0.00	400.52			
		7/10/2007	424.86		24.29		400.57	0.00	0.00	400.57			
		10/9/2007	424.86		24.35		400.51	0.00	0.00	400.51	24.65	400.21	
HMW-40C	Main	1/10/2007	425.01		28.62		396.39	0.00	0.00	396.39	39.08	385.93	
		4/10/2007	425.01		24.49		400.52	0.00	0.00	400.52			
		7/10/2007	425.01		24.97		400.04	0.00	0.00	400.04			(T 4/21/05)
		10/9/2007	425.01		27.19		397.82	0.00	0.00	397.82	39.15	385.86	
HMW-41A	Main Silt (Rand Horizon)	1/10/2007	425.42		17.80		407.62	0.00	0.00	407.62	18.13	407.29	
		4/10/2007	425.42		17.90		407.52	0.00	0.00	407.52			
		7/10/2007	425.42		19.89		405.53	0.00	0.00	405.53			Will not be used in GW flow map. TD to be verified 10/07
		10/9/2007	425.42		17.91		407.51	0.00	0.00	407.51	18.14	407.28	
HMW-41B	Main Silt (Rand Horizon)	1/10/2007	425.62		28.81		396.81	0.00	0.00	396.81	31.66	393.96	
		4/10/2007	425.62		25.40		400.22	0.00	0.00	400.22			
		7/10/2007	425.62		24.32		401.30	0.00	0.00	401.30			
		10/9/2007	425.62		26.88		398.74	0.00	0.00	398.74	31.84	393.78	
HMW-41C	Main	1/10/2007	425.85		29.04		396.81	0.00	0.00	396.81	48.09	377.76	
		4/10/2007	425.85		25.41		400.44	0.00	0.00	400.44			
		7/10/2007	425.85		25.02		400.83	0.00	0.00	400.83			
		10/9/2007	425.85		27.36		398.49	0.00	0.00	398.49	48.14	377.71	

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Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)(B) Hydrocarbon Surface Elevation (ft)	(A)(G) Water Surface Elevation (ft)	(G)(B) Hydrocarbon Thickness (ft)	D <sub>0</sub> <sup>1</sup> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC)	Comments
HMW-42A	Main Silt (Rand Horizon)	1/9/2007	431.39		26.02		405.37	0.00	0.00	405.37	26.14	405.25	
		4/10/2007	431.39		26.05		405.34	0.00	0.00	405.34			
		7/10/2007	431.39		30.19		401.20	0.00	0.00	401.20			Will not be used in GW flow map. TD to be verified 10/07
		10/9/2007	431.39		26.03		405.36	0.00	0.00	405.36	26.15	405.24	
HMW-42B	Main	1/9/2007	431.46		34.49		396.97	0.00	0.00	396.97	39.73	391.73	
		4/10/2007	431.46		31.42		400.04	0.00	0.00	400.04			
		7/10/2007	431.46		30.23		401.23	0.00	0.00	401.23			
		10/9/2007	431.46	32.43	32.50	399.03	398.96	0.07	0.006	399.01			TD not measured
HMW-43A	North Olive	1/9/2007	428.73		17.41		411.32	0.00	0.00	411.32	17.64	411.09	
		4/10/2007	428.73		17.43		411.30	0.00	0.00	411.30			
		7/10/2007	428.73		17.41		411.32	0.00	0.00	411.32			
		10/9/2007	428.73		17.40		411.33	0.00	0.00	411.33	17.64	411.09	
HMW-43B	B/C Clay (PL in B/C Clay)	1/9/2007	428.63		22.10		406.53	0.00	0.00	406.53	22.34	406.29	
		4/10/2007	428.63		22.12		406.51	0.00	0.00	406.51			
		7/10/2007	428.63		22.10		406.53	0.00	0.00	406.53			(T 1/11/05-1/11/05)
		10/9/2007	428.63								22.35	406.28	No Measurements; Well Dry
HMW-43C	Main	1/9/2007	428.96		32.79		396.17	0.00	0.00	396.17	41.13	387.83	
		4/10/2007	428.96		29.90		399.06	0.00	0.00	399.06			
		7/10/2007	428.96		29.17		399.79	0.00	0.00	399.79			(T 1/11/05)
		10/9/2007	428.96		31.03		397.93	0.00	0.00	397.93	41.50	387.46	
HMW-44A	North Olive	1/9/2007	429.47		16.12		413.35	0.00	0.00	413.35	16.35	413.12	
		4/10/2007	429.47		16.07		413.40	0.00	0.00	413.40			
		7/10/2007	429.47		16.07		413.40	0.00	0.00	413.40			
		10/9/2007	429.47		16.08		413.39	0.00	0.00	413.39	16.37	413.10	
HMW-44B	Rand	1/9/2007	429.41		23.41		406.00	0.00	0.00	406.00	23.75	405.66	
		4/10/2007	429.41		23.35		406.06	0.00	0.00	406.06			
		7/10/2007	429.41		23.28		406.13	0.00	0.00	406.13			
		10/9/2007	429.41		23.43		405.98	0.00	0.00	405.98	23.78	405.63	
HMW-44C	Main	1/9/2007	428.38	32.16	33.97	396.22	394.41	1.81	0.25	395.80	41.65	386.73	TD = January 2006
		4/10/2007	428.38	29.39	30.33	398.99	398.05	0.94	0.05	398.77			
		7/10/2007	428.38	28.63	30.85	399.75	397.53	2.22	0.41	399.24			
		10/9/2007	428.38	30.48	32.57	397.90	395.81	2.09	0.34	397.42			TD not measured
HMW-44D	Main	1/9/2007	429.76		33.98		395.78	0.00	0.00	395.78	50.45	379.31	
		4/10/2007	429.76		30.95		398.81	0.00	0.00	398.81			
		7/10/2007	429.76		30.44		399.32	0.00	0.00	399.32			(T 11/11/05)
		10/9/2007	429.76		32.39		397.37	0.00	0.00	397.37	50.52	379.24	
HMW-45A	North Olive	1/10/2007	431.17		17.51		413.66	0.00	0.00	413.66	17.64	413.53	
		4/11/2007	431.17		17.52		413.65	0.00	0.00	413.65			
		7/10/2007	431.17		17.53		413.64	0.00	0.00	413.64			
		10/9/2007	431.17		17.50		413.67	0.00	0.00	413.67	17.64	413.53	
HMW-45B	Rand	1/10/2007	431.22		28.00		403.22	0.00	0.00	403.22	28.11	403.11	
		4/11/2007	431.22		27.57		403.65	0.00	0.00	403.65			
		7/10/2007	431.22		27.24		403.98	0.00	0.00	403.98			
		10/9/2007	431.22		27.40		403.82	0.00	0.00	403.82	28.12	403.10	

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon Surface (ft)	(C) Depth to Water (ft)	(A)+(E) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>1</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC) (ft)	Comments
HMW-45C	Main	1/10/2007	430.87	34.81	35.30	396.06	395.57	0.49	0.03	395.95	45.50	385.37	
		4/11/2007	430.87	30.90	31.58	399.97	399.29	0.68	0.05	399.81			
		7/10/2007	430.87	31.54	32.05	399.33	398.82	0.51	0.03	399.21			
		10/9/2007	430.87	33.52	33.72	397.35	397.15	0.20	0.01	397.30			TD not measured
HMW-46A	North Olive	1/10/2007	430.51	[REDACTED]	18.54	[REDACTED]	411.97	0.00	0.00	411.97	17.60	412.91	
		4/10/2007	430.51	[REDACTED]	17.56	[REDACTED]	412.95	0.00	0.00	412.95			
		7/10/2007	430.51	[REDACTED]	17.61	[REDACTED]	412.90	0.00	0.00	412.90			
		10/9/2007	430.51	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	17.55	412.96	No Measurements; Well Dry
HMW-46B	B/C Clay (PL in B/C Clay)	1/10/2007	430.61	[REDACTED]	24.80	[REDACTED]	405.81	0.00	0.00	405.81	25.60	405.01	
		4/10/2007	430.61	[REDACTED]	23.88	[REDACTED]	406.73	0.00	0.00	406.73			
		7/10/2007	430.61	[REDACTED]	24.13	[REDACTED]	406.48	0.00	0.00	406.48			
		10/9/2007	430.61	[REDACTED]	24.45	[REDACTED]	406.16	0.00	0.00	406.16	25.51	405.10	
HMW-46C	Main	1/10/2007	430.49	34.60	34.67	395.89	395.82	0.07	0.01	395.87	40.85	389.64	
		4/11/2007	430.49	30.64	30.71	399.85	399.78	0.07	0.01	399.83			
		7/10/2007	430.49	31.33	31.58	399.16	398.91	0.25	0.02	399.10			
		10/9/2007	430.49	[REDACTED]	33.26	[REDACTED]	397.23	0.00	0.00	397.23	40.74	389.75	
HMW-47A	North Olive	1/10/2007	430.50	[REDACTED]	19.29	[REDACTED]	411.21	0.00	0.00	411.21	19.38	411.12	
		4/10/2007	430.50	[REDACTED]	19.02	[REDACTED]	411.48	0.00	0.00	411.48			
		7/10/2007	430.50	[REDACTED]	19.30	[REDACTED]	411.20	0.00	0.00	411.20			
		10/9/2007	430.50	[REDACTED]	19.30	[REDACTED]	411.20	0.00	0.00	411.20	19.57	410.93	
HMW-47B	B/C Clay (PL in B/C Clay)	1/10/2007	430.13	[REDACTED]	20.55	[REDACTED]	409.58	0.00	0.00	409.58	22.47	407.66	
		4/10/2007	430.13	[REDACTED]	18.86	[REDACTED]	411.27	0.00	0.00	411.27			
		7/10/2007	430.13	[REDACTED]	19.62	[REDACTED]	410.51	0.00	0.00	410.51			
		10/9/2007	430.13	[REDACTED]	20.53	[REDACTED]	409.60	0.00	0.00	409.60	22.65	407.48	
HMW-47C	Main	1/10/2007	430.61	34.84	35.01	395.77	395.60	0.17	0.01	395.73	44.94	385.67	
		4/10/2007	430.61	[REDACTED]	31.05	[REDACTED]	399.56	0.00	0.00	399.56			
		7/10/2007	430.61	31.53	31.54	399.08	399.07	0.01	0.01	399.08			
		10/9/2007	430.61	[REDACTED]	33.41	[REDACTED]	397.20	0.00	0.00	397.20	44.93	385.68	
HMW-48A	North Olive	1/9/2007	429.16	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	14.40	414.76	DRY, TD= January 2007
		4/10/2007	429.16	[REDACTED]	13.64	[REDACTED]	415.52	0.00	0.00	415.52	-		
		7/10/2007	429.16	[REDACTED]	13.86	[REDACTED]	415.30	0.00	0.00	415.30			
		10/9/2007	429.16	[REDACTED]	13.85	[REDACTED]	415.31	0.00	0.00	415.31	14.38	414.78	
HMW-48B	Rand	1/9/2007	429.18	[REDACTED]	16.21	[REDACTED]	412.97	0.00	0.00	412.97	29.19	399.99	
		4/10/2007	429.18	[REDACTED]	14.20	[REDACTED]	414.98	0.00	0.00	414.98			
		7/10/2007	429.18	15.85	15.86	413.33	413.32	0.01	0.01	413.33			
		10/9/2007	429.18	20.86	20.87	408.32	408.31	0.01	0.001	408.32			TD not measured
HMW-48C	EPA	1/9/2007	429.02	31.50	31.83	397.52	397.19	0.33	0.02	397.44	40.96	388.06	
		4/10/2007	429.02	28.62	29.80	400.40	399.22	1.18	0.08	400.13			
		7/10/2007	429.02	26.73	34.90	402.29	394.12	8.17	1.54	400.41			Plug was left off, water can get in
		10/9/2007	429.02	29.82	35.87	399.20	393.15	6.05	1.56	397.81			TD not measured
HMW-48D	Main	1/9/2007	428.98	[REDACTED]	33.29	[REDACTED]	395.69	0.00	0.00	395.69	53.13	375.85	
		4/10/2007	428.98	[REDACTED]	29.81	[REDACTED]	399.17	0.00	0.00	399.17			
		7/10/2007	428.98	[REDACTED]	29.95	[REDACTED]	399.03	0.00	0.00	399.03			
		10/9/2007	428.98	[REDACTED]	31.79	[REDACTED]	397.19	0.00	0.00	397.19	53.13	375.85	
HMW-49A	North Olive	1/10/2007	430.21	[REDACTED]	12.83	[REDACTED]	417.38	0.00	0.00	417.38	13.13	417.08	
		4/10/2007	430.21	[REDACTED]	12.87	[REDACTED]	417.34	0.00	0.00	417.34			
		7/10/2007	430.21	[REDACTED]	12.87	[REDACTED]	417.34	0.00	0.00	417.34			
		10/9/2007	430.21	[REDACTED]	12.85	[REDACTED]	417.36	0.00	0.00	417.36	13.11	417.10	

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
HMW-49B	B/C Clay (PL in B/C Clay)	1/10/2007	430.23		23.13		407.10	0.00	0.00	407.10	24.18	406.05	
		4/10/2007	430.23		22.70		407.53	0.00	0.00	407.53			
		7/10/2007	430.23		23.36		406.87	0.00	0.00	406.87			
		10/9/2007	430.23		23.88		406.35	0.00	0.00	406.35	24.18	406.05	
HMW-49C	EPA	1/10/2007	430.18		32.59		397.59	0.00	0.00	397.59	39.45	390.73	
		4/10/2007	430.18		29.23		400.95	0.00	0.00	400.95			
		7/10/2007	430.18		30.03		400.15	0.00	0.00	400.15			(T 1/19/05)
		10/9/2007	430.18		32.15		398.03	0.00	0.00	398.03	39.22	390.96	
HMW-49D	Main	1/10/2007	430.25		34.48		395.77	0.00	0.00	395.77	50.07	380.18	
		4/10/2007	430.25		30.74		399.51	0.00	0.00	399.51			
		7/10/2007	430.25		31.42		398.83	0.00	0.00	398.83			(T 1/19/05)
		10/9/2007	430.25		33.31		396.94	0.00	0.00	396.94	50.06	380.19	
HMW-50A	Rand	1/9/2007	434.43		19.12		415.31	0.00	0.00	415.31	29.88	404.55	TD = January 2006
		4/10/2007	434.43		13.84		420.59	0.00	0.00	420.59			Tannery
		7/10/2007	434.43		17.90		416.53	0.00	0.00	416.53			(T 1/11/05)
		09-Oct-07	434.43		23					411.43			
HMW-50B	EPA	1/9/2007	434.43		35.15		399.28	0.00	0.00	399.28	42.82	391.61	TD = January 2006
		4/10/2007	434.43		31.90		402.53	0.00	0.00	402.53			
		7/10/2007	434.43		32.07		402.36	0.00	0.00	402.36			(T 1/7/05)
		09-Oct-07	434.43		34.94					399.49			
HMW-50C	Main	1/9/2007	434.28		38.68		395.60	0.00	0.00	395.60	59.45	374.83	TD = January 2006
		4/10/2007	434.28		35.75		398.53	0.00	0.00	398.53			
		7/10/2007	434.28		35.36		398.92	0.00	0.00	398.92			(T 1/7/05)
		09-Oct-07	434.28		36.87					397.41			
HMW-51A	North Olive	1/10/2007	425.46		13.60		411.86	0.00	0.00	411.86	13.65	411.81	DRY, TD= January 2007
		4/10/2007	425.46		13.60								DRY
		7/10/2007	425.46		13.81		411.65	0.00	0.00	411.65	13.82	411.64	
		10/9/2007	425.46										
HMW-51B	Main	1/10/2007	425.51		24.79		400.72	0.00	0.00	400.72	25.18	400.33	
		4/10/2007	425.51		24.71		400.80	0.00	0.00	400.80			
		7/10/2007	425.51		24.73		400.78	0.00	0.00	400.78			
		10/9/2007	425.51		24.75		400.76	0.00	0.00	400.76	25.27	400.24	
HMW-51C	Main	1/10/2007	425.42		28.79		396.63	0.00	0.00	396.63	41.80	383.62	
		4/10/2007	425.42		24.80		400.62	0.00	0.00	400.62			
		7/10/2007	425.42		25.05		400.37	0.00	0.00	400.37			
		10/9/2007	425.42		27.26		398.16	0.00	0.00	398.16	41.91	383.51	
HMW-52A	Main Silt (N. Olive Horizon)	1/9/2007	427.80		20.24		407.56	0.00	0.00	407.56	20.36	407.44	
		4/10/2007	427.80		20.26		407.54	0.00	0.00	407.54			
		7/10/2007	427.80		20.25		407.55	0.00	0.00	407.55			
		10/9/2007	427.80		20.22		407.58	0.00	0.00	407.58	20.36	407.44	
HMW-52B	Main Silt (Rand Horizon)	1/9/2007	427.81		26.70		401.11	0.00	0.00	401.11	26.86	400.95	
		4/10/2007	427.81		26.76		401.05	0.00	0.00	401.05			
		7/10/2007	427.81		26.61		401.20	0.00	0.00	401.20	26.63	401.18	DRY
		10/9/2007	427.81										
HMW-52C	Main	1/9/2007	427.83		31.38		396.45	0.00	0.00	396.45	39.25	388.58	
		4/10/2007	427.83		28.64		399.19	0.00	0.00	399.19			
		7/10/2007	427.83		27.80		400.03	0.00	0.00	400.03			
		10/9/2007	427.83		29.67		398.16	0.00	0.00	398.16	39.35	388.48	

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Hydrocarbon Depth to Water (ft)	(C) Depth to Surface (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)(C) Water Surface Elevation (ft)	(C)(B) Hydrocarbon Thickness (ft)	TD (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
HMW-53A	North Olive	1/9/2007	429.73		15.72		414.01	0.00	0.00	414.01	15.90	413.83		
		4/10/2007	429.73		15.74		413.99	0.00	0.00	413.99				
		7/10/2007	429.73		15.72		414.01	0.00	0.00	414.01				
		10/9/2007	429.73		15.70		414.03	0.00	0.00	414.03	15.90	413.83		
HMW-53B	Main Silt (Rand Horizon) / Main Sand	1/9/2007	429.76	33.39	34.60	396.37	395.16	1.21	0.10	396.09	41.06	388.70		
		4/10/2007	429.76	30.50	31.62	399.26	398.14	1.12	0.07	399.00				
		7/10/2007	429.76	29.75	31.10	400.01	398.66	1.35	0.16	399.70				
		10/9/2007	429.76	31.76	32.78	398.00	396.98	1.02	0.04	397.77			TD not measured	
HMW-53C	Main	1/9/2007	429.66		33.62		396.04	0.00	0.00	396.04	46.92	382.74		
		4/10/2007	429.66		30.70		398.96	0.00	0.00	398.96				
		7/10/2007	429.66		29.99		399.67	0.00	0.00	399.67				
		10/9/2007	429.66		31.90		397.76	0.00	0.00	397.76	46.94	382.72	soft bottom	
HMW-54A	North Olive	1/9/2007	429.54								15.89	413.65	DRY, TD = January 2007	
		4/10/2007	429.54								15.89	413.65	DRY	
		7/10/2007	429.54										DRY	
		10/9/2007	429.54								15.87	413.67	No Measurements; Well Dry	
HMW-54B	Main	1/9/2007	429.55	33.27	34.66	396.28	394.89	1.39	0.13	395.96	44.48	385.07		
		4/10/2007	429.55	30.43	31.82	399.12	397.73	1.39	0.13	398.80				
		7/10/2007	429.55	29.85	30.71	399.70	398.84	0.86	0.05	399.50				
		10/9/2007	429.55	31.62	33.03	397.93	396.52	1.41	0.14	397.61			TD not measured	
HMW-54C	Main	1/9/2007	429.56		33.62		395.94	0.00	0.00	395.94	49.80	379.76		
		4/10/2007	429.56		30.76		398.80	0.00	0.00	398.80				
		7/10/2007	429.56		30.10		399.46	0.00	0.00	399.46				
		10/9/2007	429.56		31.99		397.57	0.00	0.00	397.57	49.81	379.75		
HP-01A	Main	1/9/2007	425.84		26.90		398.94	0.00	0.00	398.94	36.95	388.89		
		4/10/2007	425.84		21.55		404.29	0.00	0.00	404.29				
		7/10/2007	425.84		23.26		402.58	0.00	0.00	402.58			(T 10/7/05)	
		10/9/2007	425.84		25.76		400.08	0.00	0.00	400.08	36.98	388.86		
HP-01B	Main	1/9/2007	425.77		26.81		398.96	0.00	0.00	398.96	67.96	357.81		
		4/10/2007	425.77		21.48		404.29	0.00	0.00	404.29				
		7/10/2007	425.77		23.21		402.56	0.00	0.00	402.56				
		10/9/2007	425.77		25.67		400.10	0.00	0.00	400.10	67.95	357.82		
HP-01C	Main	1/9/2007	425.84		26.89		398.95	0.00	0.00	398.95	99.73	326.11		
		4/10/2007	425.84		21.56		404.28	0.00	0.00	404.28				
		7/10/2007	425.84		23.31		402.53	0.00	0.00	402.53				
		10/9/2007	425.84		25.69		400.15	0.00	0.00	400.15	99.72	326.12		
HP-02	Main	1/9/2007	429.92		31.02		398.90	0.00	0.00	398.90	39.60	390.32		
		4/10/2007	429.92		25.78		404.14	0.00	0.00	404.14				
		7/10/2007	429.92		27.20		402.72	0.00	0.00	402.72				
		10/9/2007	429.92		29.80		400.12	0.00	0.00	400.12	36.69	393.23		
HP-03A	Main	1/9/2007	429.28		30.55		398.73	0.00	0.00	398.73	44.91	384.37		
		4/10/2007	429.28		25.58		403.70	0.00	0.00	403.70				
		7/10/2007	429.28		26.68		402.60	0.00	0.00	402.60			(T 10/7/05)	
		10/9/2007	429.28		29.28		400.00	0.00	0.00	400.00	44.91	384.37		
HP-03B	Main	1/9/2007	429.24		30.56		398.68	0.00	0.00	398.68	72.40	356.84		
		4/10/2007	429.24		25.50		403.74	0.00	0.00	403.74				
		7/10/2007	429.24		26.71		402.53	0.00	0.00	402.53				
		10/9/2007	429.24		29.21		400.03	0.00	0.00	400.03	73.18	356.06		

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	T DO (ppm)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
HP-03C	Main	1/9/2007	429.10		30.39	398.71	398.71	0.00	0.00	398.71	102.22	326.88		
		4/10/2007	429.10		25.32	403.78	403.78	0.00	0.00	403.78				
		7/10/2007	429.10		26.57	402.53	402.53	0.00	0.00	402.53				
		10/9/2007	429.10		29.03	400.07	400.07	0.00	0.00	400.07	101.00	328.10	Probe tape not long enough. Depth is estimate	
HP-04A	Main	1/9/2007	430.94		33.04	397.90	397.90	0.00	0.00	397.90	44.97	385.97		
		4/10/2007	430.94		28.89	402.05	402.05	0.00	0.00	402.05				
		7/10/2007	430.94		29.03	401.91	401.91	0.00	0.00	401.91				
		10/9/2007	430.94		31.43	399.51	399.51	0.00	0.00	399.51	45.00	385.94		
HP-04B	Main	1/9/2007	430.94		33.00	397.94	397.94	0.00	0.00	397.94	72.85	358.09		
		4/10/2007	430.94		28.82	402.12	402.12	0.00	0.00	402.12				
		7/10/2007	430.94		29.02	401.92	401.92	0.00	0.00	401.92				
		10/9/2007	430.94		31.41	399.53	399.53	0.00	0.00	399.53	73.12	357.82		
HP-04C	Main	1/9/2007	430.96		33.04	397.92	397.92	0.00	0.00	397.92	103.22	327.74		
		4/10/2007	430.96		28.79	402.17	402.17	0.00	0.00	402.17				
		7/10/2007	430.96		29.02	401.94	401.94	0.00	0.00	401.94				
		10/9/2007	430.96		31.39	399.57	399.57	0.00	0.00	399.57	101.00	329.96	TD estimate. tape not long enough.	
HP-05A	Main	1/9/2007	424.42		25.52	398.90	398.90	0.00	0.00	398.90	39.44	384.98		
		4/10/2007	424.42		19.20	405.22	405.22	0.00	0.00	405.22				
		7/10/2007	424.42		22.01	402.41	402.41	0.00	0.00	402.41				
		10/9/2007	424.42		24.48	399.94	399.94	0.00	0.00	399.94	39.48	384.94		
HP-05B	Main	1/9/2007	424.58		25.97	398.61	398.61	0.00	0.00	398.61	66.25	358.33		
		4/10/2007	424.58		19.43	405.15	405.15	0.00	0.00	405.15				
		7/10/2007	424.58		22.48	402.10	402.10	0.00	0.00	402.10				
		10/9/2007	424.58		24.88	399.70	399.70	0.00	0.00	399.70	66.21	358.37		
HP-05C	Main	1/9/2007	424.43		25.85	398.58	398.58	0.00	0.00	398.58	96.07	328.36		
		4/10/2007	424.43		19.25	405.18	405.18	0.00	0.00	405.18				
		7/10/2007	424.43		22.38	402.05	402.05	0.00	0.00	402.05				
		10/9/2007	424.43		24.78	399.65	399.65	0.00	0.00	399.65	96.04	328.39		
HP-06	Main	1/9/2007	425.88		26.84	399.04	399.04	0.00	0.00	399.04	40.13	385.75		
		4/10/2007	425.88		20.79	405.09	405.09	0.00	0.00	405.09				
		7/10/2007	425.88		23.30	402.58	402.58	0.00	0.00	402.58				
		10/9/2007	425.88										Inaccessible; Covered by Debris	
HP-07	Main	1/9/2007	429.04		29.78	399.26	399.26	0.00	0.00	399.26	44.02	385.02		
		4/10/2007	429.04		24.32	404.72	404.72	0.00	0.00	404.72				
		7/10/2007	429.04		26.00	403.04	403.04	0.00	0.00	403.04				
		10/9/2007	429.04										Inaccessible; Covered by Debris	
HP-08	Main	1/9/2007	429.81		31.03	398.78	398.78	0.00	0.00	398.78	40.22	389.59		
		4/10/2007	429.81		26.88	402.93	402.93	0.00	0.00	402.93				
		7/10/2007	429.81		26.40	403.41	403.41	0.00	0.00	403.41				
		10/9/2007	429.81		28.93	400.88	400.88	0.00	0.00	400.88	40.25	389.56		
HP-09	Main	1/9/2007	431.45		32.76	398.69	398.69	0.00	0.00	398.69	44.55	386.90		
		4/10/2007	431.45		28.18	403.27	403.27	0.00	0.00	403.27				
		7/10/2007	431.45		28.82	402.63	402.63	0.00	0.00	402.63				
		10/9/2007	431.45		31.21	400.24	400.24	0.00	0.00	400.24	44.61	386.84		

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1190505040 – Madison County – ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
IEPA-04	Main	1/9/2007	430.35	34.10	34.94	396.25	395.41	0.84	0.06	396.06	42.92	387.43		
		4/10/2007	430.35	31.25	33.11	399.10	397.24	1.86	0.32	398.67				
		7/10/2007	430.35	30.22	32.06	400.13	398.29	1.84	0.28	399.71			Lid Off	
		10/9/2007	430.35	32.33	33.52	398.02	396.83	1.19	0.08	397.75			TD not measured	
MP-05D	Rand	1/9/2007	430.02	24.29		405.73	0.00	0.00		405.73	28.17	401.85		
		4/10/2007	430.02										DRY	
		7/10/2007	430.02	21.88		408.14	0.00	0.00		408.14			Inaccessible; Covered by Debris	
		10/9/2007	430.02											
MP-05S	A Clay	1/9/2007	429.83								9.65	420.18	DRY, TD= January 2007	
		4/10/2007	429.83										DRY	
		7/10/2007	429.83										Inaccessible; Covered by Debris	
		10/9/2007	429.83											
MP-06D	Rand	1/9/2007	430.13											
		4/10/2007	430.13											
		7/10/2007	430.13											
		10/9/2007	430.13										Inaccessible; Covered by Debris	
MP-06S	A Clay	1/9/2007	430.15								9.81	420.34		
		4/10/2007	430.15											
		7/10/2007	430.15											
		10/9/2007	430.15										Inaccessible; Covered by Debris	
MP-07D	Rand	1/9/2007	430.16											
		4/10/2007	430.16											
		7/10/2007	430.16	22.18		407.98	0.00	0.00		407.98				
		10/9/2007	430.16										Inaccessible; Covered by Trailer	
MP-07S	A Clay	1/9/2007	430.17											
		4/10/2007	430.17											
		7/10/2007	430.17	2.10		428.07	0.00	0.00		428.07				
		10/9/2007	430.17										Inaccessible; Covered by Trailer	
MP-08D	Rand	1/9/2007	430.14	25.04		405.10	0.00	0.00		405.10	25.64	404.50		
		4/10/2007	430.14	23.69		406.45	0.00	0.00		406.45				
		7/10/2007	430.14	22.96		407.18	0.00	0.00		407.18				
		10/9/2007	430.14	24.42		405.72	0.00	0.00		405.72	25.61	404.53		
MP-08S	A Clay	1/9/2007	430.20	7.10		423.10	0.00	0.00		423.10	9.81	420.39		
		4/10/2007	430.20	3.22		426.98	0.00	0.00		426.98				
		7/10/2007	430.20	4.19		426.01	0.00	0.00		426.01				
		10/9/2007	430.20	6.27		423.93	0.00	0.00		423.93	9.83	420.37		
MP-09D	Rand	1/9/2007	430.00	23.78		406.22	0.00	0.00		406.22	24.63	405.37		
		4/10/2007	430.00	22.45	22.98	407.55	407.02	0.53	0.03	407.43				
		7/10/2007	430.00	22.08	22.09	407.92	407.91	0.01	0.01	407.92				
		10/9/2007	430.00	23.57	23.58	406.43	406.42	0.01	0.0007	406.43			TD not measured	
MP-09S	A Clay	1/9/2007	430.05	8.99		421.06	0.00	0.00		421.06	9.56	420.49		
		4/10/2007	430.05	9.07		420.98	0.00	0.00		420.98				
		7/10/2007	430.05	8.74		421.31	0.00	0.00		421.31				
		10/9/2007	430.05	8.65		421.40	0.00	0.00		421.40	9.55	420.50		
MP-10D	B/C Clay / Main Silt (Rand Horizon)	1/10/2007	430.37	20.20		410.17	0.00	0.00		410.17	24.74	405.63		
		4/10/2007	430.37	18.49		411.88	0.00	0.00		411.88				
		7/10/2007	430.37	19.40		410.97	0.00	0.00		410.97				
		10/9/2007	430.37	22.85		407.52	0.00	0.00		407.52	24.95	405.42		

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbons (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>1</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC) (ft)	Comments
MP-10S	A Clay	1/10/2007	430.53								9.90	420.63	DRY, TD= January 2007
		4/10/2007	430.53								9.89	420.64	DRY
		7/10/2007	430.53								9.88	420.65	DRY
		10/9/2007	430.53								9.90	420.63	
MP-11D	B/C Clay / Main Silt (Rand Horizon)	1/10/2007	431.19		20.79		410.40	0.00	0.00	410.40	24.65	406.54	
		4/10/2007	431.19		18.99		412.20	0.00	0.00	412.20			
		7/10/2007	431.19		19.89		411.30	0.00	0.00	411.30			
		10/9/2007	431.19		23.93		407.26	0.00	0.00	407.26	24.70	406.49	
MP-11S	A Clay	1/10/2007	431.19								9.70	421.49	DRY, TD= January 2007
		4/10/2007	431.19								9.70	421.49	DRY
		7/10/2007	431.19										DRY
		10/9/2007	431.19								9.70	421.49	
MP-12D	B Clay / Rand / C Clay	1/10/2007	431.63		20.82		410.81	0.00	0.00	410.81	23.81	407.82	
		4/10/2007	431.63		18.79		412.84	0.00	0.00	412.84			
		7/10/2007	431.63		20.19		411.44	0.00	0.00	411.44			
		10/10/2007	431.63								23.01	408.62	No Measurements; Well Dry
MP-12S	A Clay	1/10/2007	431.70								9.88	421.82	DRY, TD= January 2007
		4/10/2007	431.70								9.86	421.84	DRY
		7/10/2007	431.70										DRY
		10/9/2007	431.70								9.88	421.82	
MP-13D	Main Silt (Rand Horizon)	1/9/2007	429.30								27.68	401.62	DRY, TD= January 2007
		4/10/2007	429.30		27.37		401.93	0.00	0.00	401.93			
		7/10/2007	429.30										DRY
		10/9/2007	429.30								27.68	401.62	No Measurements; Well Dry
MP-13S	A Clay	1/9/2007	429.20								9.12	420.08	DRY, TD= January 2007
		4/10/2007	429.20		8.18		421.02	0.00	0.00	421.02			
		7/10/2007	429.20		8.00		421.20	0.00	0.00	421.20			
		10/9/2007	429.20		8.28		420.92	0.00	0.00	420.92	9.15	420.05	
MP-14D	Main Silt (Rand Horizon)	1/9/2007	429.51		26.82		402.69	0.00	0.00	402.69	26.92	402.59	
		4/10/2007	429.51		26.82		402.69	0.00	0.00	402.69			
		7/10/2007	429.51		26.82		402.69	0.00	0.00	402.69			
		10/9/2007	429.51		26.82		402.69	0.00	0.00	402.69	26.91	402.60	
MP-14S	A Clay	1/9/2007	429.51								9.32	420.19	DRY, TD= January 2007
		4/10/2007	429.51								9.34	420.17	DRY
		7/10/2007	429.51		8.97		420.54	0.00	0.00	420.54	9.32	420.19	
		10/9/2007	429.51		9.11		420.40	0.00	0.00	420.40	9.32	420.19	
MP-15D	Main Silt (Rand Horizon)	1/9/2007	429.58		26.77		402.81	0.00	0.00	402.81	26.88	402.70	
		4/10/2007	429.58		26.78		402.80	0.00	0.00	402.80			
		7/10/2007	429.58		26.80		402.78	0.00	0.00	402.78			
		10/9/2007	429.58		26.78		402.80	0.00	0.00	402.80	26.91	402.67	
MP-15S	A Clay	1/9/2007	429.63								9.45	420.18	DRY, TD= January 2007
		4/10/2007	429.63								9.45	420.18	DRY
		7/10/2007	429.63										DRY
		10/9/2007	429.63								9.46	420.17	No Measurements; Well Dry
MP-16D	Main Silt (Rand Horizon)	1/9/2007	429.77		27.60		402.17	0.00	0.00	402.17	27.66	402.11	
		4/10/2007	429.77		27.62		402.15	0.00	0.00	402.15			
		7/10/2007	429.77		27.61		402.16	0.00	0.00	402.16			
		10/9/2007	429.77		27.59		402.18	0.00	0.00	402.18	27.66	402.11	

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)+(B) Hydrocarbon Thickness (ft)	Do (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
MP-16S	A Clay	1/9/2007	429.75								9.78	419.97	419.97	DRY, TD= January 2007
		4/10/2007	429.75								9.78	419.97	419.97	DRY
		7/10/2007	429.75								9.77	419.98	419.98	No Measurements; Well Dry
		10/9/2007	429.75											
MP-25	N. Olive / B Clay / Rand	1/9/2007	429.71		28.18		401.53	0.00	0.00	401.53	28.51	401.20	401.20	
		4/10/2007	429.71		26.90		402.81	0.00	0.00	402.81				
		7/10/2007	429.71		26.87		402.84	0.00	0.00	402.84				
		10/9/2007	429.71		27.43		402.28	0.00	0.00	402.28	28.51	401.20	401.20	
MP-26	N. Olive / B Clay / Rand	1/9/2007	429.54								28.65	400.89	400.89	DRY, TD= January 2007
		4/10/2007	429.54		25.78		403.76	0.00	0.00	403.76				
		7/10/2007	429.54		26.15		403.39	0.00	0.00	403.39				
		10/9/2007	429.54		26.43		403.11	0.00	0.00	403.11	28.65	400.89	400.89	
MP-27	N. Olive / B Clay / Rand	1/9/2007	429.55		28.69		400.86	0.00	0.00	400.86	28.75	400.80	400.80	
		4/10/2007	429.55		27.69		401.86	0.00	0.00	401.86				
		7/10/2007	429.55		27.92		401.63	0.01	0.01	401.63				Sheen
		10/9/2007	429.55		28.43		401.12	0.04	0.003	401.11	28.79	400.76	400.76	
MP-28	Rand	1/9/2007	429.80		25.02		404.78	0.00	0.00	404.78	28.69	401.11	401.11	
		4/10/2007	429.80		22.42		407.38	0.00	0.00	407.38				
		7/10/2007	429.80		22.60		407.20	0.00	0.00	407.20				
		10/9/2007	429.80		24.16		405.64	0.00	0.00	405.64	28.74	401.06	401.06	
MP-29A	North Olive	1/9/2007	429.39								11.90	417.49	417.49	DRY, TD= January 2007
		4/10/2007	429.39		11.86		417.53	0.00	0.00	417.53				
		7/10/2007	429.39		11.89		417.50	0.00	0.00	417.50				
		10/9/2007	429.39								11.89	417.50	417.50	
MP-29B	Rand	1/9/2007	429.43								20.31	409.12	409.12	DRY, TD= January 2007
		4/10/2007	429.43								20.29	409.14	409.14	DRY
		7/10/2007	429.43											
		10/9/2007	429.43								20.32	409.11	409.11	
MP-29C	Rand	1/9/2007	429.39	24.63	24.64	404.86	404.85	0.01	0.01	404.86	28.30	401.09	401.09	
		4/10/2007	429.39		23.05		406.44	406.44	0.00	0.00	406.44			
		7/10/2007	429.39	22.31	25.51	407.08	403.88	3.20	0.72	406.34				
		10/9/2007	429.39	24.52	27.59	404.87	401.80	3.07	0.65	404.16				TD not measured
MP-29D	Main	1/9/2007	429.47	33.40	34.73	396.07	394.74	1.33	0.11	395.76	41.00	388.47	388.47	
		4/10/2007	429.47	29.80	31.15	399.67	398.32	1.35	0.11	399.36				
		7/10/2007	429.47	29.61	32.30	399.86	397.17	2.69	0.54	399.24				
		10/9/2007	429.47	31.99	33.08	397.48	396.39	1.09	0.05	397.23				TD not measured
MP-30A	North Olive	1/10/2007	431.20		18.46		412.74	0.00	0.00	412.74	18.55	412.65	412.65	
		4/10/2007	431.20		18.49		412.71	0.00	0.00	412.71				
		7/10/2007	431.20		18.52		412.68	0.00	0.00	412.68				
		10/9/2007	431.20		18.48		412.72	0.00	0.00	412.72	18.56	412.64	412.64	
MP-30B	Rand	1/10/2007	431.21		29.37		401.84	0.00	0.00	401.84	29.97	401.24	401.24	
		4/10/2007	431.21		29.05		402.16	0.00	0.00	402.16				
		7/10/2007	431.21		27.19		404.02	0.00	0.00	404.02				
		10/9/2007	431.21		28.17		403.04	0.00	0.00	403.04	29.95	401.26	401.26	
MP-30C	Main	1/10/2007	431.13	34.76	35.83	396.37	395.30	1.07	0.07	396.12	50.00	381.13	381.13	
		4/10/2007	431.13	31.24	31.85	399.89	399.28	0.61	0.05	399.75				
		7/10/2007	431.13	31.60	31.87	399.53	399.26	0.27	0.02	399.47				
		10/9/2007	431.13	33.53	33.82	397.60	397.31	0.29	0.02	397.53				TD not measured

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>1</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Total Well Depth (TOC) (ft)	Comments
MP-31A	A Clay	1/10/2007	426.71								9.68	417.03	DRY, TD= January 2007	
		4/10/2007	426.71								9.68	417.03	DRY	
		7/10/2007	426.71								9.68	417.03	DRY	
		10/9/2007	426.71								9.68	417.03		
MP-31B	North Olive	1/10/2007	426.79		15.78		411.01	0.00	0.00	411.01	17.75	409.04		
		4/10/2007	426.79		15.61		411.18	0.00	0.00	411.18				
		7/10/2007	426.79		15.46		411.33	0.00	0.00	411.33				
		10/9/2007	426.79		16.19		410.60	0.00	0.00	410.60	17.79	409.00		
MP-31C	Main	1/10/2007	426.98		30.80		396.18	0.00	0.00	396.18	38.15	388.83	TD = January 2006	
		4/10/2007	426.98		26.72		400.26	0.00	0.00	400.26				
		7/10/2007	426.98		27.18		399.80	0.00	0.00	399.80				
		10/9/2007	426.98		29.34		397.64	0.00	0.00	397.64	38.08	388.90		
MP-32A	North Olive	1/10/2007	429.68								14.06	415.62	DRY, TD= January 2007	
		4/10/2007	429.68		13.94		415.74	0.00	0.00	415.74				
		7/10/2007	429.68										DRY	
		10/9/2007	429.68								14.17	415.51		
MP-32B	Main	1/10/2007	429.68								31.05	398.63	DRY, TD= January 2007	
		4/10/2007	429.68		30.00		399.68	0.00	0.00	399.68				
		7/10/2007	429.68	29.67	30.32	400.01	399.36	0.65	0.06	399.86				
		10/9/2007	429.68		30.93		398.75	0.00	0.00	398.75	31.05	398.63		
MP-32C	Main	1/10/2007	429.72		33.60		396.12	0.00	0.00	396.12	48.18	381.54		
		4/10/2007	429.72		29.74		399.98	0.00	0.00	399.98				
		7/10/2007	429.72		30.00		399.72	0.00	0.00	399.72				
		10/9/2007	429.72		32.13		397.59	0.00	0.00	397.59	48.23	381.49	product tone at bottom of well	
MP-33A	A Clay	1/10/2007	430.05								9.62	420.43		
		4/10/2007	430.05		9.59		420.46	0.00	0.00	420.46				
		7/10/2007	430.05										DRY	
		10/9/2007	430.05		9.91		420.14	0.00	0.00	420.14	9.92	420.13		
MP-33B	North Olive	1/10/2007	430.09								14.13	415.96		
		4/10/2007	430.09		14.09		416.00	0.00	0.00	416.00				
		7/10/2007	430.09		14.21		415.88	0.00	0.00	415.88			Will not be used in GW flow map, TD to be verified 10/07	
		10/9/2007	430.09								14.15	415.94		
MP-33C	Rand	1/10/2007	430.09								25.89	404.20		
		4/10/2007	430.09								25.86	404.23	DRY	
		7/10/2007	430.09										DRY	
		10/9/2007	430.09								25.87	404.22		
MP-33D	Main	1/10/2007	430.09								44.35	385.74		
		4/10/2007	430.09		30.20		399.89	0.00	0.00	399.89				
		7/10/2007	430.09		30.43		399.66	0.00	0.00	399.66				
		10/9/2007	430.09	32.45	32.47	397.64	397.62	0.02	0.0016	397.64	44.37	385.72		
MP-34A	North Olive	1/10/2007	430.97								15.69	415.28	ENSR Transducer Present	
		4/10/2007	430.97		15.68		415.29	0.00	0.00	415.29				
		7/10/2007	430.97		15.70		415.27	0.00	0.00	415.27			Will not be used in GW flow map, TD to be verified 10/07	
		10/9/2007	430.97		15.72		415.25	0.00	0.00	415.25	15.79	415.18		

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>o</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Comments
MP-34B	Rand	1/10/2007	430.70								24.50	406.20	ENSR Transducer Present
		4/10/2007	430.70								24.30	406.40	DRY
		7/10/2007	430.70										DRY
		10/9/2007	430.70								24.33	406.37	
MP-34C	Main	1/10/2007	430.88								43.61	387.27	ENSR Transducer Present
		4/11/2007	430.88	30.82	30.88	400.06	400.00	0.06	0.01	400.05			
		7/10/2007	430.88	30.70	32.40	400.18	398.48	1.70	0.25	399.79			
		10/9/2007	430.88										Inaccessible; Mobile ICE Unit Present
MP-35A	A Clay	1/10/2007	430.36								9.88	420.48	DRY, TD= January 2007
		4/10/2007	430.36								8.89	421.47	DRY
		7/10/2007	430.36		9.02		421.34	0.00	0.00	421.34			Will not be used in GW flow map. TD to be verified 10/07
		10/9/2007	430.36								9.89	420.47	No Measurements; Well Dry
MP-35B	North Olive	1/10/2007	430.41								17.05	413.36	DRY, TD= January 2007
		4/10/2007	430.41								17.04	413.37	DRY
		7/10/2007	430.41										DRY
		10/9/2007	430.41								17.06	413.35	
MP-35C	Rand	1/10/2007	430.44								25.32	405.12	DRY, TD= January 2007
		4/10/2007	430.44		25.03		405.41	0.00	0.00	405.41			
		7/10/2007	430.44								25.31	405.13	DRY
		10/9/2007	430.44								25.33	405.11	No Measurements; Well Dry
MP-35D	Main	1/10/2007	430.43	34.18	35.53	396.25	394.90	1.35	0.16	395.94	42.95	387.48	
		4/10/2007	430.43	30.63	31.46	399.80	398.97	0.83	0.06	399.61			
		7/10/2007	430.43	30.51	32.40	399.92	398.03	1.89	0.32	399.49			
		10/9/2007	430.43	32.55	34.45	397.88	395.98	1.90	0.32	397.44	43.01	387.42	
MP-36A	North Olive	1/10/2007	431.91								12.59	419.32	
		4/10/2007	431.91								12.60	419.31	DRY
		7/10/2007	431.91										DRY
		10/9/2007	431.91								12.61	419.30	
MP-36B	Rand	1/10/2007	431.94		26.37		405.57	0.00	0.00	405.57	29.11	402.83	
		4/10/2007	431.94		25.69		406.25	0.00	0.00	406.25			
		7/10/2007	431.94		25.35		406.59	0.00	0.00	406.59			
		10/9/2007	431.94		26.71		405.23	0.00	0.00	405.23	29.14	402.80	
MP-36C	Main	1/10/2007	431.99	35.70	36.84	396.29	395.15	1.14	0.07	396.03	43.66	388.33	
		4/10/2007	431.99										
		7/10/2007	431.99	32.32	32.99	399.67	399.00	0.67	0.06	399.52			
		10/9/2007	431.99	34.05	35.87	397.94	396.12	1.82	0.29	397.52	43.73	388.26	
MP-37A	North Olive	1/9/2007	429.01								13.05	415.96	DRY, TD= January 2007
		4/10/2007	429.01								13.03	415.98	DRY
		7/10/2007	429.01								13.05	415.96	DRY
		10/9/2007	429.01								13.07	415.94	No Measurements; Well Dry
MP-37B	Rand	1/9/2007	428.99								22.75	406.24	DRY, TD= January 2007
		4/10/2007	428.99								22.69	406.30	DRY
		7/10/2007	428.99								22.70	406.29	DRY
		10/9/2007	428.99								22.71	406.28	No Measurements; Well Dry

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Thickness (ft)	Depth to Piezometric Surface (ft)	Total Well Depth (TOC) (ft)	Total Depth to Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
MP-37C	C Clay	1/9/2007	429.07	25.53	25.54	403.54	403.53	0.01	403.54	27.95	401.12		
		4/10/2007	429.07		24.61		404.46	0.00	404.46				
		7/10/2007	429.07		24.41		404.66	0.00	404.66				
		10/9/2007	429.07	25.57	25.59	403.50	403.48	0.02	403.50	27.99	401.08		
MP-37D	Main	1/9/2007	429.04	32.09	34.37	396.95	394.67	2.28	396.43	40.05	388.99		
		4/10/2007	429.04	29.49	30.72	399.55	398.32	1.23	399.27				
		7/10/2007	429.04	29.52	30.28	399.52	398.76	0.76	399.35				
		10/9/2007	429.04	31.19	33.04	397.85	396.00	1.85	397.42				TD not measured
MP-38A	North Olive	1/10/2007	427.17							11.98	415.19	DRY, TD= January 2007	
		4/10/2007	427.17							11.99	415.18	DRY	
		7/10/2007	427.17										DRY
		10/9/2007	427.17							12.01	415.16		
MP-38B	Main Silt (Rand Horizon)	1/10/2007	427.03							23.19	403.84	DRY, TD= January 2007	
		4/10/2007	427.03							23.18	403.85	DRY	
		7/10/2007	427.03										DRY
		10/9/2007	427.03							23.18	403.85		
MP-38C	Main	1/10/2007	426.91	29.96	32.43	396.95	394.48	2.47	396.38	39.05	387.86		
		4/10/2007	426.91		26.58		400.33	0.00	400.33				
		7/10/2007	426.91		26.90		400.01	0.00	400.01				
		10/9/2007	426.91	29.08	29.32	397.83	397.59	0.24	397.77	39.10	387.81		
MP-39A	North Olive	1/10/2007	432.09		12.80		419.29	0.00	419.29	12.87	419.22		
		4/10/2007	432.09		12.80		419.29	0.00	419.29				
		7/10/2007	432.09							12.90	419.19	DRY	
		10/9/2007	432.09							12.89	419.20		
MP-39B	Rand	1/10/2007	432.07		21.32		410.75	0.00	410.75	25.99	406.08		
		4/10/2007	432.07		18.21		413.86	0.00	413.86				
		7/10/2007	432.07		20.00		412.07	0.00	412.07				
		10/9/2007	432.07		24.50		407.57	0.00	407.57	26.01	406.06		
MP-39C	Main	1/10/2007	432.07	35.47	37.10	396.60	394.97	1.63	396.23	44.30	387.77		
		4/10/2007	432.07	31.84	32.79	400.23	399.28	0.95	400.01				
		7/10/2007	432.07	31.73	33.40	400.34	398.67	1.67	399.96				
		10/9/2007	432.07	33.96	35.46	398.11	396.61	1.50	397.77	44.36	387.71		
MP-40A	A Clay	1/10/2007	431.02							10.96	420.06	DRY, TD= January 2007	
		4/10/2007	431.02							10.92	420.10	DRY	
		7/10/2007	431.02										DRY
		10/9/2007	431.02							11.00	420.02		
MP-40B	Main Silt (Rand Horizon)	1/10/2007	431.04							29.50	401.54	DRY, TD= January 2007	
		4/10/2007	431.04							29.48	401.56	DRY	
		7/10/2007	431.04		24.31		406.73	0.00	406.73	24.62	406.42		
		10/9/2007	431.04							29.50	401.54		
MP-40C	Main	1/10/2007	431.04	34.41	35.87	396.63	395.17	1.46	396.29	48.80	382.24		
		4/10/2007	431.04		31.20		399.84	0.00	399.84				
		7/10/2007	431.04		31.21		399.83	0.00	399.83				
		10/9/2007	431.04	33.24	33.50	397.80	397.54	0.26	397.74	48.86	382.18		
MP-41A	North Olive	1/9/2007	431.24							13.50	417.74	DRY, TD= January 2007	
		4/10/2007	431.24							13.52	417.72	DRY	
		7/10/2007	431.24							13.51	417.73	DRY	
		10/9/2007	431.24							13.49	417.75	No Measurements; Well Dry	

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>0</sub> (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
MP-41B	Rand	1/9/2007	431.23		25.80		405.43	0.00	0.00	405.43	25.81	405.42		
		4/10/2007	431.23		25.79		405.44	0.00	0.00	405.44				
		7/10/2007	431.23								25.80	405.43	DRY	
		10/9/2007	431.23		25.76		405.47	0.00	0.00	405.47	25.78	405.45		
MP-41C	Main	1/9/2007	431.08	34.76	35.86	396.32	395.22	1.10	0.07	396.07	44.60	386.48		
		4/11/2007	431.08	31.36	31.49	399.72	399.59	0.13	0.008	399.69				
		7/10/2007	431.08	31.03	32.51	400.05	398.57	1.48	0.19	399.71				
		10/9/2007	431.08	33.50	34.16	397.58	396.92	0.66	0.05	397.43				TD not measured
MP-42A	North Olive	1/9/2007	430.21								17.80	412.41	DRY, TD= January 2007	
		4/10/2007	430.21		17.78		412.43	0.00	0.00	412.43				
		7/10/2007	430.21								17.76	412.45	DRY	
		10/9/2007	430.21								17.76	412.45	No Measurements; Well Dry	
MP-42B	Rand	1/9/2007	430.20								28.45	401.75	DRY, TD= January 2007	
		4/10/2007	430.20								28.44	401.76	DRY	
		7/10/2007	430.20		28.39		401.81	0.00	0.00	401.81	28.43	401.77		
		10/9/2007	430.20								28.43	401.77	No Measurements; Well Dry	
MP-42C	Main	1/10/2007	430.32	34.11	35.44	396.21	394.88	1.33	0.13	395.90	39.73	390.59		
		4/10/2007	430.32	30.94	32.04	399.38	398.28	1.10	0.07	399.13				
		7/10/2007	430.32	30.55	32.29	399.77	398.03	1.74	0.25	399.37				
		10/9/2007	430.32	32.43	34.39	397.89	395.93	1.96	0.34	397.44				TD not measured
MP-43A	North Olive	1/10/2007	426.75								8.38	418.37	DRY, TD= January 2007	
		4/10/2007	426.75								8.38	418.37	DRY	
		7/10/2007	426.75											DRY
		10/9/2007	426.75								8.39	418.36		
MP-43B	Main Silt (Rand Horizon)	1/10/2007	426.72								17.24	409.48	DRY, TD= January 2007	
		4/10/2007	426.72								17.23	409.49	DRY	
		7/10/2007	426.72											DRY
		10/9/2007	426.72								17.24	409.48		
MP-43C	Main Silt (Rand Horizon) / Main Sand	1/10/2007	426.39	29.92		396.47	0.00	0.00	396.47		36.37	390.02		
		4/10/2007	426.39	25.98		400.41	0.00	0.00	400.41					
		7/10/2007	426.39	26.02	26.93	400.37	399.46	0.91	0.07	400.16				
		10/9/2007	426.39	28.48	28.60	397.91	397.79	0.12	0.01	397.88	36.40	389.99		
MP-44A	A Clay	1/9/2007	430.64								9.85	420.79	DRY, TD= January 2007	
		4/10/2007	430.64								9.82	420.82	DRY	
		7/10/2007	430.64								9.82	420.82	DRY	
		10/9/2007	430.64								9.84	420.80	No Measurements; Well Dry	
MP-44B	North Olive	1/9/2007	430.54								14.64	415.90	DRY, TD= January 2007	
		4/10/2007	430.54								14.62	415.92	DRY	
		7/10/2007	430.54								14.62	415.92	DRY	
		10/9/2007	430.54								14.63	415.91	No Measurements; Well Dry	
MP-44C	Rand	1/9/2007	430.54								24.59	405.95	DRY, TD= January 2007	
		4/10/2007	430.54	24.55		405.99	0.00	0.00	405.99					
		7/10/2007	430.54								24.54	406.00	DRY	
		10/9/2007	430.54								24.57	405.97	No Measurements; Well Dry	
MP-44D	Main	1/9/2007	430.62	34.27	35.65	396.35	394.97	1.38	0.16	396.03	44.60	386.02		
		4/10/2007	430.62	31.07	31.48	399.55	399.14	0.41	0.03	399.46				
		7/10/2007	430.62	30.54	32.11	400.08	398.51	1.57	0.22	399.72				
		10/9/2007	430.62	32.82	33.62	397.80	397.00	0.80	0.06	397.62				TD not measured

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County ~ ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>1</sub> (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Total Well Depth (TOC) (ft)	Comments
MP-45A	North Olive	1/9/2007	430.04		12.75		417.29	0.00	0.00	417.29	12.76	417.28		
		4/10/2007	430.04		12.73		417.31	0.00	0.00	417.31				
		7/10/2007	430.04		12.74		417.30	0.00	0.00	417.30				
		10/9/2007	430.04		12.75		417.29	0.00	0.00	417.29	12.77	417.27		
MP-45B	Rand	1/9/2007	430.04								23.65	406.39	DRY, TD= January 2007	
		4/10/2007	430.04										DRY	
		7/10/2007	430.04								23.64	406.40	DRY	
		10/9/2007	430.04								23.66	406.38	No Measurements; Well Dry	
MP-45C	Main	1/9/2007	429.93	33.59	35.25	396.34	394.68	1.66	0.25	395.96	44.20	385.73		
		4/10/2007	429.93		30.62		399.31	0.00	0.00	399.31				
		7/10/2007	429.93	29.88	31.25	400.05	398.68	1.37	0.16	399.73				
		10/9/2007	429.93	31.83	34.03	398.10	395.90	2.20	0.41	397.59			TD not measured	
MP-46A	North Olive	1/9/2007	429.67								14.70	414.97	DRY, TD= January 2007	
		4/10/2007	429.67								14.69	414.98	DRY	
		7/10/2007	429.67								14.68	414.99	DRY	
		10/9/2007	429.67								14.70	414.97	No Measurements; Well Dry	
MP-46B	Rand	1/9/2007	429.65		24.15		405.50	0.00	0.00	405.50	24.16	405.49		
		4/10/2007	429.65		24.14		405.51	0.00	0.00	405.51				
		7/10/2007	429.65		24.14		405.51	0.00	0.00	405.51				
		10/9/2007	429.65		24.15		405.50	0.00	0.00	405.50	24.17	405.48		
MP-46C	Main	1/9/2007	429.60	33.28	34.91	396.32	394.69	1.63	0.22	395.95	41.36	388.24		
		4/10/2007	429.60	30.33	30.41	399.27	399.19	0.08	0.01	399.25				
		7/10/2007	429.60	29.61	29.62	399.99	399.98	0.01	0.01	399.99			Sheen	
		10/9/2007	429.60	31.53	33.74	398.07	395.86	2.21	0.41	397.56			TD not measured	
MP-47A	North Olive	1/9/2007	429.12								14.10	415.02	DRY, TD= January 2007	
		4/11/2007	429.12								14.11	415.01	DRY	
		7/10/2007	429.12								14.09	415.03	DRY	
		10/9/2007	429.12								14.11	415.01	No Measurements; Well Dry	
MP-47B	Rand	1/9/2007	429.05		22.34		406.71	0.00	0.00	406.71	22.33	406.72		
		4/11/2007	429.05		22.34		406.71	0.00	0.00	406.71				
		7/10/2007	429.05								22.33	406.72	DRY	
		10/9/2007	429.05								22.35	406.70	No Measurements; Well Dry	
MP-47C	Main	1/9/2007	429.01	32.72	34.41	396.29	394.60	1.69	0.22	395.90	38.45	390.56		
		4/11/2007	429.01	29.53	30.64	399.48	398.37	1.11	0.04	399.22				
		7/10/2007	429.01	29.07	30.71	399.94	398.30	1.64	0.19	399.56				
		10/9/2007	429.01	31.01	33.14	398.00	395.87	2.13	0.35	397.51			TD not measured	
MP-48A	North Olive	1/10/2007	428.92								19.02	409.90	ENSR Transducer Present	
		4/10/2007	428.92								18.70	410.22	DRY	
		7/10/2007	428.92										DRY	
		10/9/2007	428.92										Inaccessible; Mobile ICE Unit Present	
MP-48B	Main Silt (Rand Horizon)	1/10/2007	429.04								30.84	398.20	ENSR Transducer Present	
		4/10/2007	429.04	28.91	29.03	400.13	400.01	0.12	0.008	400.10				
		7/10/2007	429.04	28.55	29.56	400.49	399.48	1.01	0.08	400.26				
		10/9/2007	429.04										Inaccessible; Mobile ICE Unit Present	
MP-48C	Main	1/10/2007	429.41								48.00	381.41	ENSR Transducer Present	
		4/10/2007	429.41	28.78	29.89	400.63	399.52	1.11	0.07	400.37				
		7/10/2007	429.41	29.00	30.12	400.41	399.29	1.12	0.07	400.15				
		10/9/2007	429.41	31.21	32.28	398.20	397.13	1.07	0.06	397.95	48.11	381.30		

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*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
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Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>0</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
MP-49A	A Clay	1/10/2007	431.07								10.98	420.09	DRY, TD= January 2007
		4/10/2007	431.07		10.43		420.64	0.00	0.00	420.64			
		7/10/2007	431.07								11.00	420.07	DRY
		10/9/2007	431.07										
MP-49B	Rand	1/10/2007	431.08		23.18		407.90	0.00	0.00	407.90	23.91	407.17	
		4/10/2007	431.08		22.34		408.74	0.00	0.00	408.74			
		7/10/2007	431.08		22.69		408.39	0.00	0.00	408.39			
		10/9/2007	431.08								23.92	407.16	
MP-49C	Main	1/10/2007	431.07	34.33	35.83	396.74	395.24	1.50	0.19	396.40	43.26	387.81	
		4/10/2007	431.07	31.07	31.39	400.00	399.68	0.32	0.02	399.93			
		7/10/2007	431.07	30.77	32.14	400.30	398.93	1.37	0.16	399.98			
		10/9/2007	431.07	32.80	34.58	398.27	396.49	1.78	0.28	397.86	43.30	387.77	
MP-50A	A Clay	1/9/2007	430.31								14.74	415.57	ENSR Transducer Present
		4/10/2007	430.31		13.71		416.60	0.00	0.00	416.60			
		7/10/2007	430.31		13.68		416.63	0.00	0.00	416.63			
		10/9/2007	430.31		13.60		416.71	0.00	0.00	416.71	14.43	415.88	
MP-50B	Rand	1/9/2007	430.29								24.08	406.21	ENSR Transducer Present
		4/10/2007	430.29		24.15		406.14	0.00	0.00	406.14			
		7/10/2007	430.29		24.16		406.13	0.00	0.00	406.13			Will not be used in GW flow map. TD to be verified 10/07
		10/9/2007	430.29								24.20	406.09	No Measurements; Well Dry
MP-50C	Main	1/9/2007	429.98								43.97	386.01	ENSR Transducer Present
		4/10/2007	429.98										ENSR Transducer Present
		7/10/2007	429.98										"Could not locate"
		10/9/2007	429.98										No Measurements; Transducer in Well
MP-51A	A Clay	1/9/2007	430.90								0.00		DRY
		4/10/2007	430.90										
		7/10/2007	430.90								9.80	421.10	DRY
		10/9/2007	430.90								9.79	421.11	No Measurements; Well Dry
MP-51B	North Olive	1/9/2007	430.91								15.00	415.91	DRY, TD= January 2007
		4/10/2007	430.91										
		7/10/2007	430.91		14.96		415.95	0.00	0.00	415.95			
		10/9/2007	430.91		14.96		415.95	0.00	0.00	415.95	14.97	415.94	
MP-51C	Rand	1/9/2007	430.93								24.63	406.30	DRY, TD= January 2007
		4/10/2007	430.93										
		7/10/2007	430.93		24.56		406.37	0.00	0.00	406.37			
		10/9/2007	430.93		24.57		406.36	0.00	0.00	406.36	24.61	406.32	
MP-51D	Main	1/9/2007	430.99	34.61	36.25	396.38	394.74	1.64	0.22	396.00	42.90	388.09	
		4/10/2007	430.99										
		7/10/2007	430.99	30.89	32.75	400.10	398.24	1.86	0.32	399.67			
		10/9/2007	430.99	32.96	34.40	398.03	396.59	1.44	0.17	397.70			TD not measured
MP-52A	A Clay	1/9/2007	429.96								10.00	419.96	DRY, TD= January 2007
		4/10/2007	429.96										DRY
		7/10/2007	429.96								10.00	419.96	DRY
		10/9/2007	429.96								10.00	419.96	No Measurements; Well Dry

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon Surface (ft)	(C) Depth to Water Surface (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Thickness (ft)	Depth (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC)	Comments
MP-52B	Rand	1/9/2007	429.97								22.65	407.32	DRY, TD= January 2007
		4/10/2007	429.97										DRY
		7/10/2007	429.97								22.63	407.34	DRY
		10/9/2007	429.97								22.65	407.32	No Measurements; Well Dry
MP-52C	Main	1/9/2007	429.99	34.57	34.60	395.42	395.39	0.03	0.01	395.41	41.97	388.02	
		4/10/2007	429.99	30.21	30.97	399.78	399.02	0.76	0.06	399.61			
		7/10/2007	429.99	29.51	31.42	400.48	398.57	1.91	0.32	400.04			
		10/9/2007	429.99	31.65	33.76	398.34	396.23	2.11	0.38	397.85			TD not measured
MP-53A	A Clay	1/9/2007	430.59		11.69		418.90	0.00	0.00	418.90	11.76	418.83	
		4/10/2007	430.59		11.36		419.23	0.00	0.00	419.23			
		7/10/2007	430.59		11.24		419.35	0.00	0.00	419.35			
		10/9/2007	430.59		11.47		419.12	0.00	0.00	419.12	11.77	418.82	
MP-53B	Rand	1/9/2007	430.60								24.51	406.09	DRY, TD= January 2007
		4/10/2007	430.60										DRY
		7/10/2007	430.60								24.49	406.11	DRY
		10/9/2007	430.60								24.51	406.09	No Measurements; Well Dry
MP-53C	Main	1/9/2007	430.52	34.33	34.90	396.19	395.62	0.57	0.05	396.06	44.65	385.87	
		4/10/2007	430.52		31.23		399.29	0.00	0.00	399.29			
		7/10/2007	430.52	30.42	31.86	400.10	398.66	1.44	0.16	399.77			
		10/9/2007	430.52	32.52	33.97	398.00	396.55	1.45	0.18	397.67			TD not measured
MP-54A	North Olive	1/9/2007	430.00								12.47	417.53	DRY, TD= January 2007
		4/10/2007	430.00		12.42		417.58	0.00	0.00	417.58			
		7/10/2007	430.00		12.42		417.58	0.00	0.00	417.58			
		10/9/2007	430.00								12.45	417.55	No Measurements; Well Dry
MP-54B	Rand	1/9/2007	429.99								24.40	405.59	DRY, TD= January 2007
		4/10/2007	429.99								24.36	405.63	DRY
		7/10/2007	429.99								24.36	405.63	DRY
		10/9/2007	429.99								24.38	405.61	No Measurements; Well Dry
MP-54C	Main	1/9/2007	430.07	33.74	35.30	396.33	394.77	1.56	0.22	395.97	43.22	386.85	
		4/10/2007	430.07		30.94		399.13	0.00	0.00	399.13			
		7/10/2007	430.07	30.41	30.42	399.66	399.65	0.01	0.01	399.66			Sheen
		10/9/2007	430.07	32.19	33.43	397.88	396.64	1.24	0.11	397.59			TD not measured
MP-55A	N. Olive / B Clay	1/9/2007	429.65		16.89		412.76	0.00	0.00	412.76	16.95	412.70	
		4/10/2007	429.65		16.88		412.77	0.00	0.00	412.77			
		7/10/2007	429.65		16.87		412.78	0.00	0.00	412.78			
		10/9/2007	429.65		16.85		412.80	0.00	0.00	412.80	16.97	412.68	
MP-55B	Rand	1/9/2007	429.64		23.89		405.75	0.00	0.00	405.75	23.86	405.78	
		4/10/2007	429.64		22.98		406.66	0.00	0.00	406.66			
		7/10/2007	429.64		23.21		406.43	0.00	0.00	406.43			
		10/9/2007	429.64								23.88	405.76	No Measurements; Well Dry
MP-55C	Main	1/10/2007	429.67	33.34	34.85	396.33	394.82	1.51	0.17	395.98	43.26	386.41	
		4/10/2007	429.67		30.74		398.93	0.00	0.00	398.93			
		7/10/2007	429.67	29.58	32.33	400.09	397.34	2.75	0.54	399.46			
		10/9/2007	429.67	31.74	33.60	397.93	396.07	1.86	0.27	397.50			TD not measured
MP-56A	North Olive	1/9/2007	430.25		10.96		419.29	0.00	0.00	419.29	10.97	419.28	
		4/10/2007	430.25		10.04		420.21	0.00	0.00	420.21			
		7/10/2007	430.25		9.98		420.27	0.00	0.00	420.27			
		10/9/2007	430.25		10.48		419.77	0.00	0.00	419.77	11.00	419.25	

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1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft) <sup>1</sup>	Do. (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) Total Well Depth (TOC)	Comments
MP-56B	Rand	1/9/2007	430.25								27.91	402.34	DRY, TD= January 2007
		4/10/2007	430.25										DRY
		7/10/2007	430.25								27.83	402.42	DRY
		10/9/2007	430.25								27.85	402.40	No Measurements; Well Dry
MP-56C	Main	1/9/2007	430.15		33.98		396.17	0.00	0.00	396.17	44.88	385.27	
		4/10/2007	430.15	30.86	30.87	399.29	399.28	0.01	0.01	399.29			
		7/10/2007	430.15	30.19	30.96	399.96	399.19	0.77	0.06	399.78			
		10/9/2007	430.15	32.19	33.12	397.96	397.03	0.93	0.07	397.75			TD not measured
MP-57A	North Olive	1/9/2007	429.05								14.79	414.26	DRY, TD= January 2007
		4/10/2007	429.05								14.78	414.27	DRY
		7/10/2007	429.05										DRY
		10/9/2007	429.05								14.76	414.29	No Measurements; Well Dry
MP-57B	Rand	1/9/2007	429.04								24.29	404.75	DRY, TD= January 2007
		4/10/2007	429.04								24.29	404.75	DRY
		7/10/2007	429.04										DRY
		10/10/2007	429.04								24.28	404.76	No Measurements; Well Dry
MP-57C	Main	1/9/2007	429.15	32.85	33.96	396.30	395.19	1.11	0.07	396.04	44.36	384.79	
		4/10/2007	429.15	30.04	30.33	399.11	398.82	0.29	0.02	399.04			
		7/10/2007	429.15	29.11	30.55	400.04	398.60	1.44	0.16	399.71			
		10/9/2007	429.15	31.14	32.32	398.01	398.83	1.18	0.09	397.74			TD not measured
MP-58A	A Clay	1/9/2007	430.29								10.02	420.27	DRY, TD= January 2007
		4/10/2007	430.29								10.02	420.27	DRY
		7/10/2007	430.29										DRY
		10/9/2007	430.29								10.03	420.26	No Measurements; Well Dry
MP-58B	Main Silt (Rand Horizon)	1/9/2007	430.29								21.18	409.11	DRY, TD= January 2007
		4/10/2007	430.29		21.03		409.26	0.00	0.00	409.26			
		7/10/2007	430.29		21.04		409.25	0.00	0.00	409.25			
		10/9/2007	430.29		20.04		410.25	0.00	0.00	410.25	21.04	409.25	
MP-58C	Main	1/9/2007	430.33	33.88	34.03	396.45	396.30	0.15	0.008	396.42	39.02	391.31	
		4/10/2007	430.33		30.76		399.57	0.00	0.00	399.57			
		7/10/2007	430.33		30.11		400.22	0.00	0.00	400.22			
		10/9/2007	430.33	32.13	32.17	398.20	398.16	0.04	0.003	398.19			TD not measured
MP-59A	A Clay	1/9/2007	429.97								9.32	420.65	DRY, TD= January 2007
		4/10/2007	429.97		8.82		421.15	0.00	0.00	421.15			
		7/10/2007	429.97		8.39		421.58	0.00	0.00	421.58			
		10/9/2007	429.97		8.38		421.59	0.00	0.00	421.59	9.38	420.59	
MP-59B	Main Silt (Rand Horizon)	1/9/2007	429.88								17.86	412.02	DRY, TD= January 2007
		4/10/2007	429.88								17.85	412.03	DRY
		7/10/2007	429.88										DRY
		10/9/2007	429.88								17.84	412.04	No Measurements; Well Dry
MP-59C	Main	1/9/2007	429.90	33.12	33.41	396.78	396.49	0.29	0.02	396.71	34.87	395.03	
		4/10/2007	429.90		29.73		400.17	0.00	0.00	400.17			
		7/10/2007	429.90		29.25		400.65	0.00	0.00	400.65			No tone, possible NAPL on probe
		10/9/2007	429.90		31.45		398.45	0.00	0.00	398.45	34.87	395.03	probe was smelly
MP-60A	A Clay	1/9/2007	429.21								9.69	419.52	DRY, TD= January 2007
		4/10/2007	429.21		7.79		421.31	0.00	0.00	421.31			
		7/10/2007	429.21		9.21		420.00	0.00	0.00	420.00	9.76	419.45	
		10/9/2007	429.21		9.71		419.50	0.00	0.00	419.50	9.76	419.45	

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Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Do (ft.)	Piezometric Surface Elevation <sup>2</sup> (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation - Total Well Depth (TOC) (ft.)	Comments
MP-60B	Main Silt (Rand Horizon)	1/9/2007	429.20								20.70	408.50	DRY, TD= January 2007
		4/10/2007	429.20		20.73		408.37	0.00	0.00	408.37			
		7/10/2007	429.20		20.62		408.58	0.00	0.00	408.58			
		10/9/2007	429.20		20.55		408.65	0.00	0.00	408.65	20.71	408.49	
MP-60C	Main	1/9/2007	429.21	32.72	34.13	396.49	395.08	1.41	0.16	396.17	37.34	391.87	
		4/10/2007	429.21	30.07	30.11	399.14	399.10	0.04	0.01	399.13			
		7/10/2007	429.21	27.90	33.35	401.31	395.86	5.45	1.44	400.06			
		10/9/2007	429.21	30.45	33.84	398.76	395.37	3.39	0.78	397.98			TD not measured
MP-61A	A Clay	1/9/2007	429.98		10.17		419.81	0.00	0.00	419.81	10.31	419.67	
		4/10/2007	429.98										DRY
		7/10/2007	429.98		10.07		419.91	0.00	0.00	419.91			
		10/9/2007	429.98		10.08		419.90	0.00	0.00	419.90	10.32	419.66	
MP-61B	Main Silt (Rand Horizon)	1/9/2007	429.98								21.31	408.67	DRY, TD= January 2007
		4/10/2007	429.98										DRY
		7/10/2007	429.98										DRY
		10/9/2007	429.98								21.32	408.66	No Measurements; Well Dry
MP-61C	Main	1/9/2007	430.00		33.08		396.92	0.00	0.00	396.92	37.02	392.98	
		4/10/2007	430.00		30.06		399.94	0.00	0.00	399.94			
		7/10/2007	430.00		28.71		401.29	0.00	0.00	401.29			
		10/9/2007	430.00		30.93		399.07	0.00	0.00	399.07	37.10	392.90	
MP-62A	A Clay	1/9/2007	429.11		8.77		420.34	0.00	0.00	420.34	9.58	419.53	
		4/10/2007	429.11		7.57		421.54	0.00	0.00	421.54			
		7/10/2007	429.11		7.89		421.22	0.00	0.00	421.22			
		10/9/2007	429.11		8.34		420.77	0.00	0.00	420.77	9.63	419.48	
MP-62B	Main Silt (N. Olive Horizon)	1/9/2007	429.11								18.15	410.96	DRY, TD= January 2007
		4/10/2007	429.11								18.16	410.95	DRY
		7/10/2007	429.11										DRY
		10/9/2007	429.11								18.14	410.97	No Measurements; Well Dry
MP-62C	Main	1/9/2007	428.94		32.21		396.73	0.00	0.00	396.73	37.02	391.92	
		4/10/2007	428.94		29.09		399.85	0.00	0.00	399.85			
		7/10/2007	428.94		28.27		400.67	0.00	0.00	400.67			
		10/9/2007	428.94		30.36		398.58	0.00	0.00	398.58	37.01	391.93	
MP-63A	A Clay	1/9/2007	429.26								9.84	419.42	DRY, TD= January 2007
		4/10/2007	429.26		9.05		420.21	0.00	0.00	420.21			
		7/10/2007	429.26		9.19		420.07	0.00	0.00	420.07			
		10/9/2007	429.26		9.42		419.84	0.00	0.00	419.84	9.58	419.68	
MP-63B	Main Silt (N. Olive Horizon)	1/10/2007	429.26								19.79	409.47	DRY, TD= January 2007
		4/10/2007	429.26		19.66		409.60	0.00	0.00	409.60			
		7/10/2007	429.26										DRY
		10/9/2007	429.26								19.77	409.49	No Measurements; Well Dry
MP-63C	Main	1/9/2007	429.29		32.69		396.60	0.00	0.00	396.60	36.82	392.47	
		4/10/2007	429.29		29.83		399.46	0.00	0.00	399.46			
		7/10/2007	429.29		28.91		400.38	0.00	0.00	400.38			
		10/9/2007	429.29		30.92		398.37	0.00	0.00	398.37	36.76	392.53	
MP-64A	A Clay	1/9/2007	428.73		9.61		419.12	0.00	0.00	419.12	9.62	419.11	
		4/10/2007	428.73								9.64	419.09	DRY
		7/10/2007	428.73		9.56		419.17	0.00	0.00	419.17			
		10/9/2007	428.73								9.62	419.11	No Measurements; Well Dry

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon Surface (ft.)	(C) Depth to Water Surface (ft.)	(A)+(B) Hydrocarbon Surface Elevation (ft.)	(A)+(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Do.	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation Total Well Depth (TOC)	Comments
MP-64B	Main Silt (N. Olive Horizon)	1/9/2007	428.74		21.31		407.43	0.00	0.00	407.43	21.40	407.34	
		4/10/2007	428.74		21.33		407.41	0.00	0.00	407.41			DRY
		7/10/2007	428.74		21.38		407.36	0.00	0.00	407.36	21.40	407.34	
		10/9/2007	428.74		21.38		407.36	0.00	0.00	407.36			
MP-64C	Main	1/9/2007	428.55	31.76	33.26	396.79	395.29	1.50	0.19	396.45	36.70	391.85	
		4/10/2007	428.55	29.29	29.54	399.26	399.01	0.25	0.02	399.20			
		7/10/2007	428.55		28.36		400.19	0.00	0.00	400.19			
		10/9/2007	428.55	30.23	30.67	398.32	397.88	0.44	0.04	398.22			TD not measured
MP-65A	Main Silt (N. Olive Horizon)	1/9/2007	431.41		16.20		415.21	0.00	0.00	415.21	16.30	415.11	
		4/10/2007	431.41		16.28		415.13	0.00	0.00	415.13			
		7/10/2007	431.41		16.31		415.10	0.00	0.00	415.10	16.39	415.02	
		10/9/2007	431.41		16.31		415.10	0.00	0.00	415.10	16.35	415.06	
MP-65B	Main	1/9/2007	431.44								24.75	406.69	DRY, TD= January 2007
		4/10/2007	431.44										DRY
		7/10/2007	431.44										DRY
		10/9/2007	431.44								24.79	406.65	No Measurements; Well Dry
MP-65C	Main	1/9/2007	431.42		33.85		397.57	0.00	0.00	397.57	40.05	391.37	
		4/10/2007	431.42		30.08		401.34	0.00	0.00	401.34			
		7/10/2007	431.42		29.66		401.76	0.00	0.00	401.76			
		10/9/2007	431.42		32.03		399.39	0.00	0.00	399.39	40.11	391.31	
MP-66A	Main Silt (N. Olive Horizon)	1/10/2007	430.81		14.22		416.59	0.00	0.00	416.59	14.39	416.42	
		4/10/2007	430.81		14.15		416.66	0.00	0.00	416.66			
		7/10/2007	430.81		14.19		416.62	0.00	0.00	416.62			
		10/9/2007	430.81		14.25		416.56	0.00	0.00	416.56	14.40	416.41	
MP-66B	Main Silt (Rand Horizon)	1/9/2007	430.82		25.16		405.66	0.00	0.00	405.66	25.43	405.39	
		4/10/2007	430.82		25.25		405.57	0.00	0.00	405.57			
		7/10/2007	430.82		25.18		405.64	0.00	0.00	405.64			
		10/9/2007	430.82		25.19		405.63	0.00	0.00	405.63	25.45	405.37	
MP-66C	Main	1/9/2007	430.79		33.38		397.41	0.00	0.00	397.41	39.94	390.85	
		4/10/2007	430.79		30.90		399.89	0.00	0.00	399.89			
		7/10/2007	430.79		29.06		401.73	0.00	0.00	401.73			
		10/9/2007	430.79		31.56		399.23	0.00	0.00	399.23	39.94	390.85	
MP-67A	A Clay	1/9/2007	430.29		9.86		420.43	0.00	0.00	420.43	9.98	420.31	
		4/10/2007	430.29		9.85		420.44	0.00	0.00	420.44			
		7/10/2007	430.29		9.88		420.41	0.00	0.00	420.41			
		10/9/2007	430.29		9.89		420.40	0.00	0.00	420.40	10.03	420.26	
MP-67B	Main Silt (Rand Horizon)	1/9/2007	430.31		25.38		404.93	0.00	0.00	404.93	25.49	404.82	
		4/10/2007	430.31		25.35		404.96	0.00	0.00	404.96			
		7/10/2007	430.31		25.38		404.93	0.00	0.00	404.93			
		10/9/2007	430.31		25.39		404.92	0.00	0.00	404.92	25.51	404.80	
MP-67C	Main	1/9/2007	430.19		33.30		396.89	0.00	0.00	396.89	39.82	390.37	
		4/10/2007	430.19		30.75		399.44	0.00	0.00	399.44			
		7/10/2007	430.19		29.54		400.65	0.00	0.00	400.65			
		10/9/2007	430.19		31.51		398.68	0.00	0.00	398.68	39.85	390.34	
MP-68	North Olive	1/10/2007	431.36								17.73	413.63	DRY, TD= January 2007
		4/11/2007	431.36								16.74	414.62	DRY
		7/10/2007	431.36										DRY
		10/9/2007	431.36								16.73	414.63	No Measurements; Well Dry

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness <sup>1</sup> (ft)	D <sub>11</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
MP-69	North Olive	1/10/2007	431.57								16.29	415.28	DRY, TD= January 2007
		4/11/2007	431.57										DRY
		7/10/2007	431.57										DRY
		10/9/2007	431.57								16.30	415.27	No Measurements; Well Dry
MP-70	North Olive	1/10/2007	431.00								15.97	415.03	DRY, TD= January 2007
		4/11/2007	431.00										DRY
		7/10/2007	431.00										DRY
		10/9/2007	431.00								15.95	415.05	No Measurements; Well Dry
MP-71	North Olive	1/10/2007	430.14								14.74	415.40	DRY, TD= January 2007
		4/10/2007	430.14										DRY
		7/10/2007	430.14										DRY
		10/9/2007	430.14								14.74	415.40	No Measurements; Well Dry
MP-72	North Olive	1/10/2007	430.51								15.74	414.77	DRY, TD= January 2007
		4/10/2007	430.51										DRY
		7/10/2007	430.51										DRY
		10/9/2007	430.51								15.73	414.78	No Measurements; Well Dry
MP-73	North Olive	1/10/2007	430.84								16.83	414.01	DRY, TD= January 2007
		4/10/2007	430.84										DRY
		7/10/2007	430.84										DRY
		10/9/2007	430.84								16.80	414.04	No Measurements; Well Dry
MP-74	North Olive	1/10/2007	431.38								17.79	413.59	DRY, TD= January 2007
		4/10/2007	431.38										DRY
		7/10/2007	431.38										DRY
		10/9/2007	431.38								17.77	413.61	No Measurements; Well Dry
MP-75	North Olive	1/10/2007	430.66								18.19	412.47	DRY, TD= January 2007
		4/10/2007	430.66		16.88		413.78	0.00	0.00	413.78			
		7/10/2007	430.66		18.02		412.64	0.00	0.00	412.64			
		10/9/2007	430.66								18.17	412.49	No Measurements; Well Dry
MP-76	North Olive	1/10/2007	430.75								17.36	413.39	DRY, TD= January 2007
		4/11/2007	430.75										DRY
		7/10/2007	430.75										DRY
		10/9/2007	430.75								17.36	413.39	No Measurements; Well Dry
MP-77A	A Clay	1/9/2007	430.53								10.50	420.03	DRY, TD= January 2007
		4/10/2007	430.53										DRY
		7/10/2007	430.53								10.48	420.05	DRY
		10/9/2007	430.53								10.50	420.03	No Measurements; Well Dry
MP-77B	Main Silt (Rand Horizon)	1/9/2007	430.62		24.58		406.04	0.00	0.00	406.04	24.67	405.95	
		4/10/2007	430.62		24.53		406.09	0.00	0.00	406.09			
		7/10/2007	430.62		24.59		406.03	0.00	0.00	406.03			
		10/9/2007	430.62		24.53		406.09	0.00	0.00	406.09	24.63	405.99	
MP-77C	Main	1/9/2007	430.46	33.89	34.95	396.57	395.51	1.06	0.07	396.33	38.76	391.70	
		4/10/2007	430.46	30.61	31.20	399.85	399.26	0.59	0.05	399.71			
		7/10/2007	430.46	30.04	31.36	400.42	399.10	1.32	0.13	400.12			
		10/9/2007	430.46	32.12	33.84	398.34	396.62	1.72	0.26	397.94			TD not measured
MP-78A	A Clay	1/10/2007	430.38								7.97	422.41	DRY, TD= January 2007
		4/11/2007	430.38		7.86		422.52	0.00	0.00	422.52			
		7/10/2007	430.38		7.91		422.47	0.00	0.00	422.47			
		10/9/2007	430.38		7.91		422.47	0.00	0.00	422.47	7.98	422.40	

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
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1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>o</sub> (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC)	Comments
MP-78B	North Olive	1/10/2007	430.23								13.83	416.40	DRY, TD= January 2007	
		4/11/2007	430.23		13.76		416.47	0.00	0.00	416.47			DRY	
		7/10/2007	430.23								13.85	416.38	No Measurements; Well Dry	
		10/9/2007	430.23											
MP-78C	Rand	1/10/2007	430.29		24.08		406.21	0.00	0.00	406.21	24.23	406.06		
		4/11/2007	430.29		24.07		406.22	0.00	0.00	406.22				
		7/10/2007	430.29		24.11		406.18	0.00	0.00	406.18				
		10/9/2007	430.29		24.07		406.22	0.00	0.00	406.22	24.25	406.04		
MP-78D	Main	1/10/2007	430.17		34.23		395.94	0.00	0.00	395.94	37.85	392.31		
		4/11/2007	430.17		30.13		400.04	0.00	0.00	400.04				
		7/10/2007	430.17		30.91		399.26	0.00	0.00	399.26				
		10/9/2007	430.17		32.89		397.28	0.00	0.00	397.28	37.86	392.31		
MP-79A	North Olive	1/10/2007	429.44								16.84	412.60	DRY, TD= January 2007	
		4/10/2007	429.44								16.85	412.59	DRY	
		7/10/2007	429.44										DRY	
		10/9/2007	429.44								16.84	412.60	No Measurements; Well Dry	
MP-79B	Rand	1/10/2007	429.48								28.88	400.60	DRY, TD= January 2007	
		4/10/2007	429.48								25.87	403.61	DRY	
		7/10/2007	429.48		26.74		402.74	0.00	0.00	402.74			Will not be used in GW flow map. TD to be verified 10/07	
		10/9/2007	429.48		27.40		402.08	0.00	0.00	402.08	28.86	400.62		
MP-79C	Main	1/11/2007	429.52	32.27	36.58	397.25	392.94	4.31	1.07	396.26	37.20	392.32		
		4/10/2007	429.52	27.99	34.40	401.53	395.12	6.41	1.60	400.06				
		7/10/2007	429.52	28.19	35.51	401.33	394.01	7.32	1.60	399.65				
		10/9/2007	429.52	31.85	35.25	397.67	394.27	3.40	0.79	396.89			TD not measured	
MP-79D	Main	1/10/2007	429.46		33.42		396.04	0.00	0.00	396.04	50.65	378.81		
		4/10/2007	429.46		29.63		399.83	0.00	0.00	399.83				
		7/10/2007	429.46		30.07		399.39	0.00	0.00	399.39				
		10/9/2007	429.46		32.04		397.42	0.00	0.00	397.42	50.64	378.82		
MP-80A	North Olive	1/10/2007	430.03		18.85		411.18	0.00	0.00	411.18	18.79	411.24		
		4/11/2007	430.03										DRY	
		7/10/2007	430.03										DRY	
		10/9/2007	430.03								18.81	411.22	No Measurements; Well Dry	
MP-80B	Rand	1/10/2007	430.01		27.56		402.54	0.00	0.00	402.54	29.53	400.48		
		4/11/2007	430.01		22.72		407.38	0.00	0.00	407.38				
		7/10/2007	430.01		21.68		408.33	0.00	0.00	408.33				
		10/9/2007	430.01		22.38		407.63	0.00	0.00	407.63	29.60	400.41		
MP-80C	Main	1/10/2007	430.03	33.61	35.14	396.42	394.89	1.53	0.19	396.07	43.60	386.43		
		4/11/2007	430.03	28.75	34.25	401.28	395.78	5.50	1.44	400.02				
		7/10/2007	430.03	28.48	36.59	401.55	393.44	8.11	1.60	399.68				
		11/20/2007	430.03	32.21	35.56	397.82	394.47	3.35	0.77	397.05	43.61	386.42		
MP-81A	A Clay	1/10/2007	425.57								7.65	417.92	DRY, TD= January 2007	
		4/10/2007	425.57								7.62	417.95	DRY	
		7/10/2007	425.57										DRY	
		10/9/2007	425.57								7.70	417.87	No Measurements; Well Dry	

**TABLE 2**  
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1190505040 -- Madison County -- ILR 000128249  
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Well	Stratum/Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>0</sub> (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC)	Comments
MP-81B	Main Silt (Rand Horizon)	1/10/2007	425.53								18.72	406.81	DRY, TD= January 2007
		4/10/2007	425.53								18.69	406.84	DRY
		7/10/2007	425.53										DRY
		10/9/2007	425.53								18.76	406.77	No Measurements; Well Dry
MP-81C	Main	1/10/2007	425.40		28.58		396.82	0.00	0.00	396.82	32.37	393.03	
		4/10/2007	425.40		24.75		400.65	0.00	0.00	400.65			
		7/10/2007	425.40		24.51		400.89	0.00	0.00	400.89			
		10/9/2007	425.40		26.88		398.52	0.00	0.00	398.52	32.40	393.00	
MP-82A	A Clay	1/10/2007	431.67								10.62	421.05	
		4/10/2007	431.67										DRY
		7/10/2007	431.67								10.62	421.05	DRY
		10/9/2007	431.67										Inaccessible; Could Not Locate
MP-82B	Main Silt (Rand Horizon)	1/10/2007	431.58								25.77	405.81	
		4/10/2007	431.58		25.57		406.01	0.00	0.00	406.01			
		7/10/2007	431.58		25.59		405.99	0.00	0.00	405.99	25.72	405.86	
		10/9/2007	431.58										Inaccessible; Could Not Locate
MP-82C	Main	1/10/2007	431.61		34.88		396.73	0.00	0.00	396.73	38.64	392.97	
		4/10/2007	431.61		31.23		400.38	0.00	0.00	400.38			
		7/10/2007	431.61	31.00	31.19	400.61	400.42	0.19	0.02	400.57			
		10/9/2007	431.61	33.25	33.29	398.36	398.32	0.04	0.003	398.35	38.69	392.92	
MP-83A	North Olive	1/10/2007	426.92								15.35	411.57	DRY, TD= January 2007
		4/10/2007	426.92								15.37	411.55	DRY
		7/10/2007	426.92										DRY
		10/9/2007	426.92								15.38	411.54	No Measurements; Well Dry
MP-83B	Rand	1/10/2007	426.94								23.50	403.44	DRY, TD= January 2007
		4/10/2007	426.94								23.54	403.40	DRY
		7/10/2007	426.94										DRY
		10/9/2007	426.94								23.53	403.41	No Measurements; Well Dry
MP-83C	Main	1/10/2007	426.79		30.66		396.13	0.00	0.00	396.13	41.98	384.81	
		4/10/2007	426.79		26.66		400.13	0.00	0.00	400.13			
		7/10/2007	426.79		27.26		399.53	0.00	0.00	399.53			
		10/9/2007	426.79		24.02		402.77	0.00	0.00	402.77	42.02	384.77	
MP-84A	A Clay	1/10/2007	432.08								8.57	423.51	DRY, TD= January 2007
		4/10/2007	432.08		8.56		423.52	0.00	0.00	423.52			
		7/10/2007	432.08		8.52		423.56	0.00	0.00	423.56			
		10/9/2007	432.08		8.55		423.53	0.00	0.00	423.53	8.57	423.51	
MP-84B	Main Silt (Rand Horizon)	1/10/2007	432.07		25.45		406.62	0.00	0.00	406.62	25.35	406.72	
		4/10/2007	432.07		25.43		406.64	0.00	0.00	406.64			
		7/10/2007	432.07										DRY
		10/9/2007	432.07		25.36		406.71	0.00	0.00	406.71	25.51	406.56	
MP-84C	Main Silt (Rand Horizon) / Main Sand	1/10/2007	432.10	35.27	36.99	396.83	395.11	1.72	0.25	396.43	37.80	394.30	
		4/10/2007	432.10	32.06	32.18	400.04	399.92	0.12	0.008	400.01			
		7/10/2007	432.10	31.70	32.32	400.40	399.78	0.62	0.05	400.26			
		10/9/2007	432.10	33.52	35.61	398.58	396.49	2.09	0.38	398.10	37.88	394.22	
MP-85A	North Olive	1/9/2007	428.07		10.16		417.91	0.00	0.00	417.91	10.30	417.77	
		4/10/2007	428.07		8.73		419.34	0.00	0.00	419.34			
		7/10/2007	428.07		8.54		419.53	0.00	0.00	419.53			
		10/9/2007	428.07		8.77		419.30	0.00	0.00	419.30	10.28	417.79	

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon + Surface Elevation (ft)	(A)+(C) Water + Surface Elevation (ft)	(C)+(B) Hydrocarbon Thickness (ft)	Date DoY	Piezometric Surface Elevation (TOC) (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (Total Well Depth) (TOC)	Comments
MP-85B	Rand	1/9/2007	428.06		17.31		410.75	0.00	0.00	410.75	20.54	407.52	
		4/10/2007	428.06		16.01		412.05	0.00	0.00	412.05			
		7/10/2007	428.06		15.06		413.00	0.00	0.00	413.00			
		10/9/2007	428.06	18.78	19.45	409.28	408.61	0.67	0.05	409.13			TD not measured
MP-85C	EPA	1/9/2007	428.08	32.10	32.26	395.98	395.82	0.16	0.01	395.94	36.00	392.08	
		4/10/2007	428.08		29.05		399.03	0.00	0.00	399.03			
		7/10/2007	428.08		28.98		399.10	0.00	0.00	399.10			WELL BUBBLING
		10/9/2007	428.08	30.55	30.56	397.53	397.52	0.01	0.0007	397.53			TD not measured
MP-85D	Main	1/9/2007	427.86		32.09		395.77	0.00	0.00	395.77	49.55	378.31	
		4/10/2007	427.86		28.73		399.13	0.00	0.00	399.13			
		7/10/2007	427.86		28.86		399.00	0.00	0.00	399.00			
		10/9/2007	427.86		30.55		397.31	0.00	0.00	397.31	49.55	378.31	
MP-86A	A Clay	1/10/2007	431.31								7.50	423.81	DRY, TD= January 2007
		4/10/2007	431.31		7.45		423.86	0.00	0.00	423.86			
		7/10/2007	431.31										DRY
		10/9/2007	431.31		7.41		423.90	0.00	0.00	423.90	7.48	423.83	
MP-86B	Main Silt (Rand Horizon)	1/10/2007	431.28		25.53		405.75	0.00	0.00	405.75	25.61	405.67	
		4/10/2007	431.28		25.49		405.79	0.00	0.00	405.79			
		7/10/2007	431.28		25.52		405.76	0.00	0.00	405.76	25.62	405.66	
		10/9/2007	431.28		25.50		405.78	0.00	0.00	405.78	25.59	405.69	
MP-86C	Main	1/10/2007	431.20	34.48	34.62	396.72	396.58	0.14	0.008	396.69	39.23	391.97	
		4/10/2007	431.20		30.80		400.40	0.00	0.00	400.40			
		7/10/2007	431.20	30.66	30.81	400.54	400.39	0.15	0.02	400.51			
		10/9/2007	431.20	32.88	32.91	398.32	398.29	0.03	0.002	398.31			TD not measured
MP-87A	A Clay	1/10/2007	432.01								6.58	425.43	
		4/10/2007	432.01								6.56	425.45	DRY
		7/10/2007	432.01										DRY
		10/9/2007	432.01								6.58	425.43	
MP-87B	Main Silt (Rand Horizon)	1/10/2007	432.01								25.62	406.39	
		4/10/2007	432.01		25.51		406.50	0.00	0.00	406.50			
		7/10/2007	432.01		25.50		406.51	0.00	0.00	406.51			
		10/9/2007	432.01		25.49		406.52	0.00	0.00	406.52	25.64	406.37	
MP-87C	Main	1/10/2007	432.08								39.69	392.39	
		4/10/2007	432.08	31.89	32.69	400.19	399.39	0.80	0.06	400.01			
		7/10/2007	432.08	31.55	32.86	400.53	399.22	1.31	0.13	400.23			
		10/9/2007	432.08	33.70	34.99	398.38	397.09	1.29	0.13	398.08	39.73	392.35	
MP-88A	A Clay	1/9/2007	430.60								9.84	420.76	DRY, TD= January 2007
		4/10/2007	430.60		9.79		420.81	0.00	0.00	420.81			
		7/10/2007	430.60		9.66		420.94	0.00	0.00	420.94			
		10/9/2007	430.60		19.64		410.96	0.00	0.00	410.96	9.82	420.78	No Measurements; Well Dry
MP-88B	Main Silt (Rand Horizon)	1/9/2007	430.60								19.71	410.89	DRY, TD= January 2007
		4/10/2007	430.60		19.60		411.00	0.00	0.00	411.00			
		7/10/2007	430.60		19.60		411.00	0.00	0.00	411.00			
		10/9/2007	430.60		19.64		410.96	0.00	0.00	410.96	19.69	410.91	

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1190505040 -- Madison County – ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
MP-88C	Main	1/9/2007	430.51	33.76	34.02	396.75	396.49	0.26	396.69	38.67	391.84	
		4/10/2007	430.51		30.52		399.99	0.00	0.00	399.99		
		7/10/2007	430.51	29.87	30.12	400.64	400.39	0.25	0.02	400.58		
		10/9/2007	430.51		32.05		398.46	0.00	0.00	398.46	38.67	391.84
MP-89A	A Clay	1/9/2007	429.17		9.72		419.45	0.00	0.00	419.45	9.76	419.41
		4/10/2007	429.17		7.95		421.22	0.00	0.00	421.22		
		7/10/2007	429.17		9.06		420.11	0.00	0.00	420.11		
		10/9/2007	429.17		9.52		419.65	0.00	0.00	419.65	9.77	419.40
MP-89B	Main Silt (Rand Horizon)	1/9/2007	429.17							19.78	409.39	DRY, TD= January 2007
		4/10/2007	429.17							19.78	409.39	DRY
		7/10/2007	429.17							19.78	409.39	DRY
		10/9/2007	429.17							19.76	409.41	No Measurements; Well Dry
MP-89C	Main	1/9/2007	429.25		32.45		396.80	0.00	0.00	396.80	37.88	391.37
		4/10/2007	429.25		29.48		399.77	0.00	0.00	399.77		
		7/10/2007	429.25		28.35		400.90	0.00	0.00	400.90		
		10/9/2007	429.25		30.47		398.78	0.00	0.00	398.78	37.84	391.41
MP-90BR	Main Silt (N. Olive Horizon)	1/10/2007	429.95							15.92	414.03	DRY, TD= January 2007
		4/10/2007	429.95							15.90	414.05	DRY
		7/10/2007	429.95									DRY
		10/9/2007	429.95							15.92	414.03	
MP-90C	Main Silt (Rand Horizon) / Main Sand	1/10/2007	429.95	33.18	34.13	396.77	395.82	0.95	0.08	396.55	40.26	389.69
		4/10/2007	429.95	29.39	30.39	400.56	399.56	1.00	0.08	400.33		
		7/10/2007	429.95	29.20	31.10	400.75	398.85	1.90	0.32	400.31		
		10/9/2007	429.95	31.56	32.75	398.39	397.20	1.19	0.09	398.12	40.40	389.55
MP-91B	Main Silt (N. Olive Horizon)	1/10/2007	425.98							14.49	411.49	DRY, TD= January 2007
		4/10/2007	425.98							14.48	411.50	DRY
		7/10/2007	425.98									DRY
		10/9/2007	425.98							14.50	411.48	
MP-91C	Main Silt (Rand Horizon)	1/10/2007	425.98							27.70	398.28	DRY, TD= January 2007
		4/11/2007	425.98		26.24		399.74	0.00	0.00	399.74		
		7/10/2007	425.98	25.32	25.60	400.66	400.38	0.28	0.02	400.60		
		10/9/2007	425.98	27.01	27.22	398.97	398.76	0.21	0.02	398.92	27.71	398.27
MP-91D	Main	1/10/2007	425.98		29.51		396.45	0.00	0.00	396.45	44.24	381.72
		4/10/2007	425.98		25.41		400.55	0.00	0.00	400.55		
		7/10/2007	425.98		25.60		400.36	0.00	0.00	400.36		
		10/9/2007	425.98		27.89		398.07	0.00	0.00	398.07	44.22	381.74
MP-92C	North Olive	1/10/2007	427.71		19.88		407.83	0.00	0.00	407.83	19.91	407.80
		4/10/2007	427.71		19.81		407.90	0.00	0.00	407.90		
		7/10/2007	427.71		19.83		407.88	0.00	0.00	407.88		
		10/9/2007	427.71		19.85		407.86	0.00	0.00	407.86	19.91	407.80
MP-92D	Main Silt (Rand Horizon) / Main Sand	1/10/2007	427.98		31.15		396.83	0.00	0.00	396.83	36.65	391.33
		4/10/2007	427.98		27.08		400.90	0.00	0.00	400.90		
		7/10/2007	427.98		27.30		400.68	0.00	0.00	400.68		
		10/9/2007	427.98		29.65		398.33	0.00	0.00	398.33	36.63	391.35

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>1</sub> (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
MP-93A	Fill / A Clay	1/10/2007	429.74								6.10	423.64	DRY, TD= January 2007	
		4/10/2007	429.74								6.11	423.63	DRY	
		7/10/2007	429.74										DRY	
		10/9/2007	429.74								6.11	423.63	No Measurements; Well Dry	
MP-93B	A Clay	1/10/2007	429.84								11.68	418.16	DRY, TD= January 2007	
		4/10/2007	429.84								11.69	418.15	DRY	
		7/10/2007	429.84										DRY	
		10/9/2007	429.84								11.68	418.16	No Measurements; Well Dry	
MP-94A	A Clay	1/9/2007	428.63		8.53		420.10	0.00	0.00	420.10	9.73	418.90		
		4/10/2007	428.63		8.11		420.52	0.00	0.00	420.52				
		7/10/2007	428.63		8.90		419.73	0.00	0.00	419.73				
		10/9/2007	428.63		9.05		419.58	0.00	0.00	419.58	9.73	418.90		
MP-94B	Main Silt	1/9/2007	428.72		17.79		410.93	0.00	0.00	410.93	17.82	410.90		
		4/10/2007	428.72		17.79		410.93	0.00	0.00	410.93				
		7/10/2007	428.72		17.80		410.92	0.00	0.00	410.92				
		10/9/2007	428.72		17.77		410.95	0.00	0.00	410.95	17.79	410.93		
MP-95A	A Clay	1/9/2007	428.60								9.66	418.94	DRY, TD= January 2007	
		4/10/2007	428.60		9.37		419.23	0.00	0.00	419.23				
		7/10/2007	428.60		9.19		419.41	0.00	0.00	419.41				
		10/9/2007	428.60								9.65	418.95	No Measurements; Well Dry	
MP-95B	Main Silt	1/9/2007	428.67		16.69		411.98	0.00	0.00	411.98	16.73	411.94		
		4/10/2007	428.67		16.71		411.96	0.00	0.00	411.96				
		7/10/2007	428.67		16.70		411.97	0.00	0.00	411.97				
		10/9/2007	428.67		16.68		411.99	0.00	0.00	411.99	16.73	411.94		
MP-96A	A Clay	1/9/2007	429.42		5.08		424.34	0.00	0.00	424.34	5.10	424.32		
		4/10/2007	429.42								5.11	424.31	DRY	
		7/10/2007	429.42										DRY	
		10/9/2007	429.42								5.11	424.31	No Measurements; Well Dry	
MP-96B	North Olive	1/9/2007	429.57								14.56	415.01	DRY, TD= January 2007	
		4/10/2007	429.57								14.58	414.99	DRY	
		7/10/2007	429.57										DRY	
		10/9/2007	429.57								14.57	415.00	No Measurements; Well Dry	
MP-96C	Rand	1/9/2007	429.38		23.57		405.81	0.00	0.00	405.81	23.67	405.71		
		4/10/2007	429.38		23.57		405.81	0.00	0.00	405.81				
		7/10/2007	429.38										DRY	
		10/9/2007	429.38		23.60		405.78	0.00	0.00	405.78	23.66	405.72		
MP-96D	Main	1/9/2007	429.48	33.26	34.38	396.22	395.10	1.12	0.07	395.96	34.58	394.90		
		4/10/2007	429.48	30.55	31.47	398.93	398.01	0.92	0.07	398.72				
		7/10/2007	429.48	29.71	31.43	399.77	398.05	1.72	0.25	399.37				
		10/9/2007	429.48	31.59	33.24	397.89	396.24	1.65	0.24	397.51			TD not measured	
MP-97A	A Clay	1/9/2007	429.33								4.78	424.55	DRY, TD= January 2007	
		4/10/2007	429.33								4.79	424.54	DRY	
		7/10/2007	429.33										DRY	
		10/9/2007	429.33								4.78	424.55	No Measurements; Well Dry	
MP-97B	North Olive	1/9/2007	429.31			15.58				413.73	15.65	413.66		
		4/10/2007	429.31			15.56				413.75	0.00	413.75		
		7/10/2007	429.31			15.57				413.74	0.00	413.74		
		10/9/2007	429.31			15.55				413.76	0.00	413.76	15.65	413.66

**TABLE 2**  
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1190505040 -- Madison County -- ILR 000128249  
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>0</sub> (ft)	Piezometric Surface Elevation <sup>1</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC)	Comments
MP-97C	Rand	1/9/2007	429.30								23.72	405.58	DRY, TD= January 2007
		4/10/2007	429.30								23.73	405.57	DRY
		7/10/2007	429.30										DRY
		10/9/2007	429.30		23.63		405.67	0.00	0.00	405.67	23.71	405.59	
MP-97D	Main	1/9/2007	429.31	33.09	34.73	396.22	394.58	1.64	0.22	395.84	40.14	389.17	
		4/10/2007	429.31	30.37	31.12	398.94	398.19	0.75	0.06	398.77			
		7/10/2007	429.31	29.56	31.25	399.75	398.06	1.69	0.25	399.36			
		10/9/2007	429.31	32.46	33.08	396.85	396.23	0.62	0.05	396.71			TD not measured
MP-98A	A Clay	1/9/2007	429.40									4.66	424.74
		4/10/2007	429.40									4.67	424.73
		7/10/2007	429.40										DRY
		10/9/2007	429.40									4.67	424.73
MP-98B	North Olive	1/9/2007	429.38									15.29	414.09
		4/10/2007	429.38									15.31	414.07
		7/10/2007	429.38										DRY
		10/9/2007	429.38									15.30	414.08
MP-98C	Rand	1/9/2007	429.38									23.79	405.59
		4/10/2007	429.38									23.80	405.58
		7/10/2007	429.38										DRY
		10/9/2007	429.38									23.80	405.58
MP-99A	A Clay	1/10/2007	431.59		6.88		424.71	0.00	0.00	424.71	6.89		424.70
		4/10/2007	431.59		6.84		424.75	0.00	0.00	424.75			
		7/10/2007	431.59										DRY
		10/9/2007	431.59		6.87		424.72	0.00	0.00	424.72	6.90		424.69
MP-99B	Main Silt	1/10/2007	431.58		13.28		418.30	0.00	0.00	418.30	13.35		418.23
		4/10/2007	431.58		13.24		418.34	0.00	0.00	418.34			
		7/10/2007	431.58		13.25		418.33	0.00	0.00	418.33			
		10/9/2007	431.58		13.26		418.32	0.00	0.00	418.32	13.35		418.23
MP-99C	Main	1/10/2007	431.56		34.61		396.95	0.00	0.00	396.95	34.70		396.86
		4/10/2007	431.56		31.25		400.31	0.00	0.00	400.31			
		7/10/2007	431.56	31.04	31.05	400.52	400.51	0.01	0.01	400.52			
		10/9/2007	431.56		33.25		398.31	0.00	0.00	398.31	34.71		396.85
MP-100A	Fill	1/10/2007	431.55									4.19	427.36
		4/10/2007	431.55									4.18	427.37
		7/10/2007	431.55										DRY
		10/9/2007	431.55										Inaccessible; Could Not Locate
MP-100B	A Clay	1/10/2007	431.62									7.23	424.39
		4/10/2007	431.62									7.25	424.37
		7/10/2007	431.62									7.25	424.37
		10/9/2007	431.62										Inaccessible; Could Not Locate
MP-100C	Main Silt	1/10/2007	431.67		13.21		418.46	0.00	0.00	418.46	13.27		418.40
		4/10/2007	431.67		13.23		418.44	0.00	0.00	418.44			
		7/10/2007	431.67		13.23		418.44	0.00	0.00	418.44	13.27		418.40
		10/9/2007	431.67										Inaccessible; Could Not Locate
MP-100D	Main	10/9/2007	431.65										Inaccessible; Could Not Locate

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1190505040 -- Madison County -- ILR 000128249  
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Well	Stratum-Screened	DATE	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	(D) Do. (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC)	Comments
MP-101A	A Clay	1/10/2007	431.29								7.68	423.41		
		4/10/2007	431.29											
		7/10/2007	431.29		6.96		424.33	0.00	0.00	424.33				
		10/9/2007	431.29		7.16		424.13	0.00	0.00	424.13	7.90	423.39		
MP-101B	Main Silt	1/10/2007	431.30								13.92	417.38		
		4/10/2007	431.30											
		7/10/2007	431.30											DRY
		10/9/2007	431.30		13.88		417.42	0.00	0.00	417.42	13.93	417.37		
MP-101C	Main	1/10/2007	431.31								34.60	396.71		
		4/10/2007	431.31											
		7/10/2007	431.31	30.78	30.99	400.53	400.32	0.21	0.02	400.48				
		10/9/2007	431.31		32.99		398.32	0.00	0.00	398.32	34.64	396.67		
MP-102A	A Clay	1/10/2007	431.14								7.77	423.37		
		4/10/2007	431.14		7.71		423.43	0.00	0.00	423.43				
		7/10/2007	431.14		7.51		423.63	0.00	0.00	423.63				
		10/9/2007	431.14		7.71		423.43	0.00	0.00	423.43	7.72	423.42		
MP-102B	Main Silt	1/10/2007	431.13								14.33	416.80		
		4/10/2007	431.13		14.67		416.46	0.00	0.00	416.46				
		7/10/2007	431.13		14.70		416.43	0.00	0.00	416.43				Will not be used in GW flow map. TD to be verified 10/07
		10/9/2007	431.13		14.64		416.49	0.00	0.00	416.49	14.71	416.42		
MP-102C	Main	1/10/2007	431.13								34.55	396.58		
		4/10/2007	431.13		30.71		400.42	0.00	0.00	400.42				
		7/10/2007	431.13		30.40		400.73	0.00	0.00	400.73				
		10/9/2007	431.13	32.64	32.87	398.49	398.26	0.23	0.02	398.44				TD not measured
MP-103A	A Clay	1/10/2007	431.23								7.81	423.42	DRY, TD= January 2007	
		4/10/2007	431.23								7.81	423.42	DRY	
		7/10/2007	431.23											DRY
		10/9/2007	431.23								7.80	423.43	No Measurements; Well Dry	
MP-103B	Main Silt	1/10/2007	431.25		14.53		416.72	0.00	0.00	416.72	14.59	416.66		
		4/10/2007	431.25		14.53		416.72	0.00	0.00	416.72				
		7/10/2007	431.25		14.58		416.67	0.00	0.00	416.67				
		10/9/2007	431.25		14.53		416.72	0.00	0.00	416.72	14.59	416.66		
MP-103C	Main	1/10/2007	431.24		34.52		396.72	0.00	0.00	396.72	34.92	396.32		
		4/10/2007	431.24		30.83		400.41	0.00	0.00	400.41				
		7/10/2007	431.24		30.60		400.64	0.00	0.00	400.64				
		10/9/2007	431.24	32.81	32.93	398.43	398.31	0.12	0.01	398.40				TD not measured
MP-104A	A Clay	1/10/2007	431.26		6.96		424.30	0.00	0.00	424.30	7.78	423.48		
		4/10/2007	431.26		7.40		423.86	0.00	0.00	423.86				
		7/10/2007	431.26		7.56		423.70	0.00	0.00	423.70				
		10/9/2007	431.26								7.78	423.48	No Measurements; Well Dry	
MP-104B	Main Silt	1/10/2007	431.29		14.35		416.94	0.00	0.00	416.94	14.43	416.86		
		4/10/2007	431.29		14.34		416.95	0.00	0.00	416.95				
		7/10/2007	431.29		14.36		416.93	0.00	0.00	416.93				
		10/9/2007	431.29		14.36		416.93	0.00	0.00	416.93	14.41	416.88		

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1190505040 -- Madison County -- ILR 000128249  
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Well	Stratum Screened	DATE	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	D <sub>0</sub> (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation (ft.)	Total Well Depth (TOC) (ft.)	Comments
MP-104C	Main	1/10/2007	431.25		34.51		396.74	0.00	0.00	396.74	34.60	396.65		
		4/10/2007	431.25		30.88		400.37	0.00	0.00	400.37				
		7/10/2007	431.25		30.67		400.58	0.00	0.00	400.58				
		10/9/2007	431.25	32.90	32.99	398.35	398.26	0.09	0.007	398.33				TD not measured
MP-105A	A Clay / N.Olive	1/9/2007	430.95								9.70	421.25	DRY, TD= January 2007	
		4/10/2007	430.95								9.70	421.25	DRY	
		7/10/2007	430.95								9.70	421.25	DRY	
		10/9/2007	430.95								9.71	421.24	No Measurements; Well Dry	
MP-105B	A Clay / N.Olive	1/9/2007	431.36								9.40	421.96	DRY, TD= January 2007	
		4/10/2007	431.36								9.42	421.94	DRY	
		7/10/2007	431.36								9.39	421.97	DRY	
		10/9/2007	431.36								9.40	421.96	No Measurements; Well Dry	
MP-105C	A Clay / N.Olive	1/9/2007	431.35								9.35	422.00	DRY, TD= January 2007	
		4/10/2007	431.35								9.35	422.00	DRY	
		7/10/2007	431.35								9.37	421.98	DRY	
		10/9/2007	431.35								9.38	421.97	No Measurements; Well Dry	
MP-105D	A Clay / N.Olive	10/9/2007	431.43								9.27	422.16	No Measurements; Well Dry	
MP-105E	A Clay / N.Olive	1/9/2007	431.46								9.50	421.96	DRY, TD= January 2007	
		4/10/2007	431.46								9.51	421.95	DRY	
		7/10/2007	431.46								9.51	421.95	DRY	
		10/9/2007	431.46								9.51	421.95	No Measurements; Well Dry	
MP-106A	A Clay	1/9/2007	429.49								5.25	424.24	DRY, TD= January 2007	
		4/10/2007	429.49								5.24	424.25	DRY	
		7/10/2007	429.49								5.23	424.26	DRY	
		10/9/2007	429.49								5.24	424.25	No Measurements; Well Dry	
MP-106B	North Olive	1/9/2007	429.48								13.65	415.83	DRY, TD= January 2007	
		4/10/2007	429.48								13.68	415.80	DRY	
		7/10/2007	429.48								13.65	415.83	DRY	
		10/9/2007	429.48								13.66	415.82	No Measurements; Well Dry	
MP-106C	Rand	1/9/2007	429.49		22.70		406.79	0.00	0.00	406.79	22.71	406.78		
		4/10/2007	429.49		19.91		409.58	0.00	0.00	409.58				
		7/10/2007	429.49		19.83		409.66	0.00	0.00	409.66				
		10/9/2007	429.49		22.42		407.07	0.00	0.00	407.07	22.71	406.78		
MP-107A	A Clay	1/9/2007	429.76		4.89		424.87	0.00	0.00	424.87	5.22	424.54		
		4/10/2007	429.76		4.95		424.81	0.00	0.00	424.81				
		7/10/2007	429.76		5.21		424.55	0.00	0.00	424.55				
		10/9/2007	429.76								5.23	424.53	No Measurements; Well Dry	
MP-107B	North Olive	1/9/2007	429.80								13.29	416.51	DRY, TD= January 2007	
		4/10/2007	429.80								13.26	416.54	DRY	
		7/10/2007	429.80								13.25	416.55	DRY	
		10/9/2007	429.80								13.25	416.55	No Measurements; Well Dry	
MP-107C	Rand	1/9/2007	429.74								21.85	407.89	DRY, TD= January 2007	
		4/10/2007	429.74		21.68		408.06	0.00	0.00	408.06				
		7/10/2007	429.74								21.81	407.93	DRY	
		10/9/2007	429.74								21.82	407.92	No Measurements; Well Dry	

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	D <sub>1</sub> (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth at Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
MP-108A	A Clay	1/9/2007	429.57								5.15	424.42	DRY, TD= January 2007	
		4/10/2007	429.57								5.15	424.42	DRY	
		7/10/2007	429.57								5.15	424.42	DRY	
		10/9/2007	429.57								5.17	424.40	No Measurements; Well Dry	
MP-108B	North Olive	1/9/2007	429.62								13.75	415.87	DRY, TD= January 2007	
		4/10/2007	429.62		13.15		416.47	0.00	0.00	416.47				
		7/10/2007	429.62								13.73	415.89	DRY	
		10/9/2007	429.62								13.43	416.19	No Measurements; Well Dry	
MP-108C	Rand	1/9/2007	429.60		21.72		407.88	0.00	0.00	407.88	21.70	407.90		
		4/10/2007	429.60								21.70	407.90	DRY	
		7/10/2007	429.60								21.70	407.90	DRY	
		10/9/2007	429.60								21.71	407.89	No Measurements; Well Dry	
River Elevation		1/9/2007				402.74								
		4/10/2007				411.61								
		7/10/2007				404.12								
		10/9/2007				402.08								
RW-1	Main	1/10/2007	433.78	37.08	37.48	396.70	396.30	0.40	0.03	396.61				DRY
		4/10/2007	433.78	33.52	33.67	400.26	400.11	0.15	0.008	400.23				
		7/10/2007	433.78	33.38	33.39	400.40	400.39	0.01	0.01	400.40				
		10/9/2007	433.78		35.58		398.20	0.00	0.00	398.20				TD not measured
RW-2	Main	1/10/2007	431.99	35.85	36.62	396.14	395.37	0.77	0.06	395.96	50.44	381.55		
		4/10/2007	431.99	32.61	33.41	399.38	398.58	0.80	0.06	399.20				
		7/10/2007	431.99	32.30	33.09	399.69	398.90	0.79	0.06	399.51				
		10/9/2007	431.99	34.05	35.78	397.94	396.21	1.73	0.26	397.54				TD not measured
RW-3	Main	1/10/2007	433.35	37.27	37.98	396.08	395.37	0.71	0.05	395.92	47.15	386.20		
		4/10/2007	433.35	33.87	34.19	399.48	399.16	0.32	0.02	399.41				
		7/10/2007	433.35	34.04	34.31	399.31	399.04	0.27	0.02	399.25				
		10/9/2007	433.35	35.97	36.25	397.38	397.10	0.28	0.02	397.32				TD not measured
RW-4	Rand / C Clay / Main Sand	1/9/2007	429.65		33.64		396.01	0.00	0.00	396.01	43.11	386.54		
		4/10/2007	429.65		20.44		409.21	0.00	0.00	409.21				
		7/10/2007	429.65		30.25		399.40	0.00	0.00	399.40				
		10/9/2007	429.65		32.22		397.43	0.00	0.00	397.43	43.10	386.55		
RW-4A	Rand / C Clay / Main Sand	1/9/2007	429.86								44.29	385.57	Skimmer Pump in Well	
		4/10/2007	429.86											Skimmer Pump in Well
		7/10/2007	429.86	30.50	30.62	399.36	399.24	0.12	0.01	399.33				
		10/9/2007	429.86											TD not measured
RW-5	Rand / C Clay / Main Sand	1/9/2007	430.22	33.98	35.27	396.24	394.95	1.29	0.13	395.94	44.10	386.12		
		4/10/2007	430.22	30.88	31.51	399.34	398.71	0.63	0.05	399.20				
		7/10/2007	430.22	30.36	31.92	399.86	398.30	1.56	0.22	399.50				
		10/9/2007	430.22	32.26	33.94	397.96	396.28	1.68	0.25	397.57				TD not measured

**TABLE 2**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	(D) Do (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Comments
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**NOTES:**

[Redacted] = No data or DRY (See Comments)

PL = Permeable Lense

SG = Specific gravity of hydrocarbon determined to be an average of 0.77 for data recorded during and after 09/02

(T xx/xx/xxxx) = Date transducer installed in well, however, data may be from miniTROLL or manual gauging

<sup>1</sup> =  $D_o$  is a normalized volume of LNAPL ( $\text{ft}^3/\text{ft}^2$ ) per unit surface area, but is expressed as a thickness (in units of feet)

<sup>2</sup> = Piezometric surface elevation =  $[(A)-(C)] + SG[(C)-(B)]$

MP-5 through 28 installed as vacuum monitoring probes by Clayton in 7/03 and are not appropriate for determining groundwater flow

HMW-30 through 37, RW-4 and RMW-4A installed as pilot test wells by Clayton in 2004 and are not appropriate for determining groundwater flow

TOC elevations surveyed to USGS datum by CMT

Total Depths listed in January 2007 are from July 2006 unless otherwise indicated

For  $D_o$ , URS used Clayton's "Do Calculation Table (rev. 10-11-06)" to populate column

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon Surface (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation (ft.)	Total Well Depth (TOC) (ft.)	Comments
P-77	Main	1/9/2007	434.71		39.03		395.68	0.00	395.68	72.52	362.19		
		4/10/2007	434.71		36.32		398.39	0.00	398.39				
		7/10/2007	434.71		35.81		398.9	0.00	398.90		434.71	Lock Rusted/Unlocked.	
		10/9/2007	434.71		37.49		397.22	0.00	397.22				
P-78	Main	1/9/2007	433.33		37.7		395.63	0.00	395.63	67.5	365.83		
		4/10/2007	433.33		35.97		397.36	0.00	397.36				
		7/10/2007	433.33		34.45		398.88	0.00	398.88		433.33		
		10/9/2007	433.33		36.18		397.15	0.00	397.15				
P-79	Main	1/9/2007	432.72		37.04		395.68	0.00	395.68	62.51	370.21		
		4/10/2007	432.72		34.26		398.46	0.00	398.46				
		7/10/2007	432.72		33.74		398.98	0.00	398.98		432.72	Lock Rusted/Unlocked.	
		10/9/2007	432.72		35.52		397.2	0.00	397.20				
P-80	Main	1/9/2007	433.1		37.54		395.56	0.00	395.56	64.4	368.7		
		4/10/2007	433.1		34.7		398.4	0.00	398.40				
		7/10/2007	433.1		34.14		398.96	0.00	398.96		433.1	No Lock.	
		10/9/2007	433.1		35.96		397.14	0.00	397.14				
P-81	EPA	1/9/2007	433.26	37.28	39.01	395.98	394.25	1.73	395.53	43.1	390.16		
		4/10/2007	433.26		35.82		397.44	0.00	397.44				
		7/10/2007	433.26		33.55		399.71	0.00	399.71		433.26	Visual evidence of product on probe. No Lock.	
		10/9/2007	433.26		35.53		397.73	0.00	397.73				
P-104	N. Olive / B Clay / Rand	1/9/2007	432.74		24.55		408.19	0.00	408.19	27.75	404.99		
		4/10/2007	432.74		18.53		414.21	0.00	414.21				
		7/10/2007	432.74		18.75		413.99	0.00	413.99		432.74		
		10/9/2007	432.74		23.05		409.69	0.00	409.69				
P-105	EPA	1/9/2007	432.59		36.53		396.06	0.00	396.06	39.76	392.83		
		4/10/2007	432.59		34.17		398.42	0.00	398.42				
		7/10/2007	432.59		30.84		401.75	0.00	401.75		432.59	No Lock.	
		10/9/2007	432.59		34.14		398.45	0.00	398.45				
P-106	Main	1/9/2007	432.7		36.99		395.71	0.00	395.71	53.6	379.1		
		4/10/2007	432.7		34.14		398.56	0.00	398.56				
		7/10/2007	432.7		33.62		399.08	0.00	399.08		432.7	No Lock.	
		10/9/2007	432.7		35.45		397.25	0.00	397.25				
P-107	EPA	1/9/2007	431.92		33.1		398.82	0.00	398.82	42.08	389.84		
		4/10/2007	431.92		30.05		401.87	0.00	401.87				
		7/10/2007	431.92		29.54		402.38	0.00	402.38		431.92	Lock Rusted/Unlocked.	
		10/9/2007	431.92		32.4		399.52	0.00	399.52				
P-129	Main	1/9/2007	433.23								433.23		
P-130	Rand	1/9/2007	431.59								42.08	389.51	
P-131	Rand	1/9/2007	432.65		21.1		411.55	0.00	411.55	27.02	405.63		
		4/10/2007	432.65		13.77		418.88	0.00	418.88				
		7/10/2007	432.65		18		414.65	0.00	414.65		432.65		
		10/9/2007	432.65		23.52		409.13	0.00	409.13				

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)+(B) Hydrocarbon Surface Elevation (ft.)	(A)+(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation - Total Well Depth (TOC) (ft.)	Comments
P-132	EPA	1/9/2007	432.12		32.79		399.33	0.00	399.33	36.55	395.57	
		4/10/2007	432.12		29.4		402.72	0.00	402.72			
		7/10/2007	432.12		29.59		402.53	0.00	402.53		432.12	
		10/9/2007	432.12		32.51		399.61	0.00	399.61			
P-133	North Olive	1/9/2007	431.06		17.12		413.94	0.00	413.94	25.11	405.95	
		4/10/2007	431.06		14.18		416.88	0.00	416.88			
		7/10/2007	431.06		21.35		409.71	0.00	409.71		431.06	
		10/9/2007	431.06		24.4		406.66	0.00	406.66			
P-134	North Olive	1/9/2007	432.55		19.92		412.63	0.00	412.63	24.2	408.35	
		4/10/2007	432.55		13.86		418.69	0.00	418.69			
		7/10/2007	432.55		17.54		415.01	0.00	415.01		432.55	
		10/9/2007	432.55		21.8		410.75	0.00	410.75			
SP-1	Rand	1/9/2007	429.01		11.54		417.47	0.00	417.47	26.85	402.16	
		4/10/2007	429.01		9.04		419.97	0.00	419.97			
		7/10/2007	429.01		13.37		415.64	0.00	415.64		429.01	
		10/9/2007	429.01		18.66		410.35	0.00	410.35			
SP-2B	EPA	1/9/2007	429.11		29.48		399.63	0.00	399.63	37.3	391.81	
		4/10/2007	429.11		26.18		402.93	0.00	402.93			
		7/10/2007	429.11		26.82		402.29	0.00	402.29		429.11	Troll Present.
		10/9/2007	429.11		29.72		399.39	0.00	399.39			
SP-3	Rand	1/9/2007	431.64		13.21		418.43	0.00	418.43	27	404.64	
		4/10/2007	431.64		10.66		420.98	0.00	420.98			
		7/10/2007	431.64		15.22		416.42	0.00	416.42		431.64	
		10/9/2007	431.64		20.75		410.89	0.00	410.89			
SP-5	Rand	1/9/2007	431.15		13.46		417.69	0.00	417.69		431.15	
		4/10/2007	431.15		11.39		419.76	0.00	419.76			
		7/10/2007	431.15		15.35		415.8	0.00	415.80		431.15	Troll Present.
		10/9/2007	431.15		21.09		410.06	0.00	410.06			
SP-6	Rand	1/9/2007	433.08		13.78		419.3	0.00	419.30	27.65	405.43	
		4/10/2007	433.08		10.94		422.14	0.00	422.14			
		7/10/2007	433.08		15.48		417.6	0.00	417.60		0	
		10/9/2007	433.08		21.72		411.36	0.00	411.36			
SP-7	Rand	1/9/2007	429.03		11.44		417.59	0.00	417.59	25.09	403.94	
		4/10/2007	429.03		8.45		420.58	0.00	420.58			
		7/10/2007	429.03		13.28		415.75	0.00	415.75		429.03	
		10/9/2007	429.03		18.49		410.54	0.00	410.54			
SP-8	Rand	1/9/2007	429.03		11.44		417.59	0.00	417.59		429.03	
		4/10/2007	429.03		8		421.03	0.00	421.03			
		7/10/2007	429.03		12.98		416.05	0.00	416.05		429.03	
		10/9/2007	429.03		18.23		410.8	0.00	410.80			
SP-9	Rand	1/9/2007	432.65		14.34		418.31	0.00	418.31	24.86	407.79	
		4/10/2007	432.65		10.97		421.68	0.00	421.68			
		7/10/2007	432.65		15.34		417.31	0.00	417.31		432.65	
		10/9/2007	432.65		21.05		411.6	0.00	411.60			Not Locked/Rusted.

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation (ft.)	Total Well Depth (TOC) (ft.)	Comments
SP-10	Rand	1/9/2007	432.61	14.07		418.54	0.00	418.54	28.03	404.58			
		4/10/2007	432.61	10.62		421.99	0.00	421.99					
		7/10/2007	432.61	14.78		417.83	0.00	417.83					
		10/9/2007	432.61	21		411.81	0.00	411.61					
SP-11	Rand	1/9/2007	432.4	13.21		419.19	0.00	419.19	24.83	407.57			
		4/10/2007	432.4	10.91		421.49	0.00	421.49					
		7/10/2007	432.4	14.85		417.55	0.00	417.55		432.4	Troll Present.		
		10/9/2007	432.4	21.38		411.02	0.00	411.02					
SP-12	EPA / D Clay / Main Sand	1/9/2007	432.35							49.3	383.05		Abandoned by Shell in 12/2005
SP-13	EPA / D Clay / Main Sand	1/9/2007	432.48							49	383.48		Abandoned by Shell in 12/2005
SP-14	EPA / D Clay / Main Sand	1/9/2007	428.92							428.92			Abandoned by Shell in 2006
		4/10/2007	428.92										
SP-15	Rand	1/9/2007	428.89	11.71		417.18	0.00	417.18	22.09	406.8			
		4/10/2007	428.89	8.43		420.46	0.00	420.46					
		7/10/2007	428.89	14.03		414.86	0.00	414.86					
		10/9/2007	428.89	18.88		410.01	0.00	410.01					
SP-16	Rand	1/9/2007	429.43	11.98		417.45	0.00	417.45	28.21	401.22			
		4/10/2007	429.43	9.37		420.06	0.00	420.06					
		7/10/2007	429.43	14.38		415.05	0.00	415.05		429.43			
		10/9/2007	429.43	19.45		409.98	0.00	409.98					
SP-17	Rand	1/9/2007	428.19							428.19			Abandoned by Shell in 2006
SP-18	EPA / D Clay / Main Sand	1/9/2007	431.07							431.07			Abandoned by Shell in 2006
SP-19	Rand	1/9/2007	430.87	15.17		415.7	0.00	415.70	23.61	407.26			
		4/10/2007	430.87	11.79		419.08	0.00	419.08					
		7/10/2007	430.87	18.83		412.04	0.00	412.04		430.87			
		10/9/2007	430.87	22.55		408.32	0.00	408.32					
SP-20	Rand	1/9/2007	431.16	13.76		417.4	0.00	417.40	23.61	407.55			
		4/10/2007	431.16	10.31		420.85	0.00	420.85					
		7/20/2007	431.16	18.49		412.67	0.00	412.67					
		10/9/2007	431.16	22.55		408.61	0.00	408.61					
SP-21	Rand	1/9/2007	431.68	16.15		415.53	0.00	415.53	24.3	407.38			
		4/10/2007	431.68	12.97	12.98	418.71	0.01	418.71					
		7/10/2007	431.68	20.68		411	0.00	411.00		431.68	Not Locked/Rusted.		
		10/9/2007	431.68	24.24	24.25	407.44	0.01	407.44					Product visually confirmed on probe
SP-22	Rand	1/9/2007	430.35	12.49		417.86	0.00	417.86	27.1	403.25			
		4/10/2007	430.35			430.35	0.00	430.35					
		7/10/2007	430.35	15.42		414.93	0.00	414.93		430.35			
		10/9/2007	430.35	20.34		410.01	0.00	410.01					
SP-23	Rand	1/9/2007	430.7	13.16		417.54	0.00	417.54	24.8	405.9			
		4/10/2007	430.7	10.21		420.49	0.00	420.49					
		7/10/2007	430.7	16.59		414.11	0.00	414.11		430.7			
		10/9/2007	430.7	21.35		409.35	0.00	409.35					

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
SP-24	Rand	1/9/2007	429.89		11.28		418.61	0.00	418.61	25.52	404.37	
		4/10/2007	429.89		8.25		421.64	0.00	421.64			
		7/10/2007	428.89		13.04		415.85	0.00	415.85		428.89	
		10/9/2007	428.89		18.29		410.6	0.00	410.60			
SP-25	Rand	1/9/2007	428.61	11.07	11.11	417.54	417.5	0.04	417.53	21.56	407.05	
		4/10/2007	428.61		8.17		420.44	0.00	420.44			
		7/10/2007	428.61	13.05	13.06		415.55	0.01	415.56		428.61	No well cap. Confirmed by evidence on probe.
		10/9/2007	428.61				428.61	0.00				Well not found after remedial system removal
SP-26	Rand	1/9/2007	429.88		12.38		417.5	0.00	417.50	25.94	403.94	
		4/10/2007	429.88		9.39		420.49	0.00	420.49			
		7/10/2007	429.88		14.22		415.66	0.00	415.66		429.88	
		10/9/2007	429.88	19.4	19.44	410.48	410.44	0.04	410.47			Product visually confirmed on probe
SP-27	Rand	1/9/2007	431.93		14.58		417.35	0.00	417.35	18.3	413.63	
		4/10/2007	431.93		12.11		419.82	0.00	419.82			
		7/10/2007	431.93				431.93	0.00			431.93	Could not get probe to water due to obstruction in well.
		10/9/2007	431.93				431.93	0.00				Hose within well obstructed the probe
SP-28	Rand	1/9/2007	432.21		13.81		418.4	0.00	418.40	29.8	402.41	
		4/10/2007	432.21		11.5		420.71	0.00	420.71			
		7/10/2007	432.21		15.83		416.38	0.00	416.38		432.21	
		10/9/2007	432.21		21.36		410.85	0.00	410.85			
SP-29	Rand	1/9/2007	431.81		14.18		417.63	0.00	417.63	29.8	402.01	
		4/10/2007	431.81		10.87		420.94	0.00	420.94			
		7/10/2007	431.81		15.78		416.03	0.00	416.03		431.81	Odor
		10/9/2007	431.81	21.01	21.02	410.8	410.79	0.01	410.80			Product visually confirmed on probe
SP-30	Rand	1/9/2007	431.87	15.45	15.51	416.42	416.36	0.06	416.40	30.34	401.53	
		4/10/2007	431.87	13.13	13.21	418.74	418.66	0.08	418.72			
		7/10/2007	431.87	17.62	17.63	414.25	414.24	0.01	414.25			Product confirmed by evidence on probe.
		10/9/2007	431.87	22.35	22.36	409.52	409.51	0.01	409.52			Product visually confirmed on probe
SP-31	Rand	1/9/2007	429.77		12.84		416.93	0.00	416.93	26.17	403.6	
		4/10/2007	429.77		9.25		420.52	0.00	420.52			
		7/10/2007	429.77		14.81		414.96	0.00	414.96		429.77	
		10/9/2007	429.77		19.67		410.1	0.00	410.10			
SP-32	Rand	1/9/2007	430.49		13.35		417.14	0.00	417.14	26.34	404.15	
		4/10/2007	430.49		10.07		420.42	0.00	420.42			
		7/10/2007	430.49		15.64		414.85	0.00	414.85		430.49	
		10/9/2007	430.49		20.48		410.01	0.00	410.01			
SP-33	Rand	1/9/2007	430.99		13.74		417.25	0.00	417.25	29.96	401.03	
		4/10/2007	430.99		11.14		419.85	0.00	419.85			
		7/10/2007	430.99		16		414.99	0.00	414.99		430.99	
		10/9/2007	430.99		21.09		409.9	0.00	409.90			

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Comments
SP-34	Rand	1/9/2007	430.17		13.54		416.63	0.00	416.63	29.11	401.06	
		4/10/2007	430.17				430.17	0.00				
		7/10/2007	430.17		15.66		414.51	0.00	414.51		430.17	
		10/9/2007	430.17		20.44		409.73	0.00	409.73			
SP-35	Rand	1/9/2007	431.13		13.59		417.54	0.00	417.54	27.95	403.18	
		4/10/2007	431.13		10.65		420.48	0.00	420.48			
		7/10/2007	431.13		15.46		415.67	0.00	415.67		431.13	Odor
		10/9/2007	431.13		20.66		410.47	0.00	410.47			
SP-36	Main	1/9/2007	429.5		34.1		395.4	0.00	395.40	50.67	378.83	
		4/10/2007	429.5		31.59		397.91	0.00	397.91			
		7/10/2007	429.5		31.03		398.47	0.00	398.47		429.5	
		10/9/2007	429.5		32.6		396.9	0.00	396.90			
SP-37	EPA	1/9/2007	429.71		29.66		400.05	0.00	400.05	32.06	397.65	
		4/10/2007	429.71		24.85		404.86	0.00	404.86			
		7/10/2007	429.71		27.79		401.92	0.00	401.92		429.71	Troll Present
		10/9/2007	429.71		30.95		398.76	0.00	398.76			
SP-38	Rand	1/9/2007	430.9		22.39		408.51	0.00	408.51	20.41	410.49	
		4/10/2007	430.9		17.88		413.02	0.00	413.02			
		7/10/2007	430.9		22.85		408.05	0.00	408.05		430.9	
		10/9/2007	430.9		24.87		406.03	0.00	406.03			
SP-39	Rand	1/9/2007	431.98		15.57		416.41	0.00	416.41	24.05	407.93	
		4/10/2007	431.98		12.16		419.82	0.00	419.82			
		7/10/2007	431.98		19.33		412.65	0.00	412.65		431.98	
		10/9/2007	429.29		21.15		408.14	0.00	408.14			This well made flush-mounted just prior to 4Q07
SP-40	EPA	1/9/2007	431.84		31.77		400.07	0.00	400.07	37.38	394.46	
		4/10/2007	431.84		28.43		403.41	0.00	403.41			
		7/10/2007	431.84		29.55		402.29	0.00	402.29		431.84	
		10/9/2007	429.22		29.79		399.43	0.00	399.43			This well made flush-mounted just prior to 4Q07
SP-41	Main	1/9/2007	431.52		36.2		395.32	0.00	395.32	55.2	376.32	
		4/10/2007	431.52		32.99		398.53	0.00	398.53			
		7/10/2007	431.52		32.98		398.54	0.00	398.54		431.52	
		10/9/2007	429.04		32.15		396.89	0.00	396.89			This well made flush-mounted just prior to 4Q07
SP-42	Main	1/9/2007	431.73		36.19		395.54	0.00	395.54	50	381.73	
		4/10/2007	431.73		32.66		399.07	0.00	399.07			
		7/10/2007	431.73		32.85		398.88	0.00	398.88		431.73	Surface Concrete Broken
		10/9/2007	431.76		34.7		397.06	0.00	397.06			
SP-43	EPA	1/9/2007	431.75		29.12		402.63	0.00	402.63	35.7	396.05	
		4/10/2007	431.75		26.16		405.59	0.00	405.59			
		7/10/2007	431.75		28.68		403.07	0.00	403.07		431.75	Troll Present. Surface concrete broken
		10/9/2007	431.79		32.24		399.55	0.00	399.55			

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A):(B) Hydrocarbon Surface Elevation (ft)	(A):(C) Water Surface Elevation (ft)	(C):(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
SP-44	Rand	1/9/2007	431.87		18.1		413.77	0.00	413.77	18.1	413.77	
		4/10/2007	431.87		16.6		415.27	0.00	415.27			
		7/10/2007	431.87		18.79		413.08	0.00	413.08		431.87	Odor
		10/9/2007	431.89	23.71	24.31	408.18	407.58	0.60	408.02			
SP-45	EPA	1/9/2007	434.16		34.56		399.6	0.00	399.60		434.16	
		4/10/2007	434.16		31.43		402.73	0.00	402.73			
		7/10/2007	434.16		31.81		402.35	0.00	402.35		434.16	
		10/9/2007	434.16		34.82		399.34	0.00	399.34			
SP-46	Main	1/9/2007	434.06		38.56		395.5	0.00	395.50		434.06	
		4/10/2007	434.06		35.49		398.57	0.00	398.57			
		7/10/2007	434.06		35.27		398.79	0.00	398.79		434.06	Troll Present
		10/9/2007	434.06		37.05		397.01	0.00	397.01			
SP-47	EPA	1/9/2007	432.96		33.41		399.55	0.00	399.55		432.96	
		4/10/2007	432.96		30.22		402.74	0.00	402.74			
		7/10/2007	432.96		30.53		402.43	0.00	402.43		432.96	
		10/9/2007	432.96		33.51		399.45	0.00	399.45			
SP-48	Unknown	1/9/2007	432.31		33.71		398.6	0.00	398.60		432.31	
		4/10/2007	432.31		31.13		401.18	0.00	401.18			
		7/10/2007	432.31		31.38		400.93	0.00	400.93			
		10/9/2007	432.31		33.88		398.43	0.00	398.43			
SP-49	Unknown	1/9/2007	428.85		30.06		398.79	0.00	398.79		428.85	
		4/10/2007	428.85		26.88		401.97	0.00	401.97			
		7/10/2007	428.85		27.91		400.94	0.00	400.94			Troll Present
		10/9/2007	428.85		30.03		398.82	0.00	398.82			
SP-50	EPA	1/9/2007	432.47		33.12		399.35	0.00	399.35		432.47	
		4/10/2007	432.47		29.9		402.57	0.00	402.57			
		7/10/2007	432.47		30.63		401.84	0.00	401.84			Pressure/Odor
		10/9/2007	432.47		33.38		399.09	0.00	399.09			
SP-51	Main	1/9/2007	432.49		37.09		395.4	0.00	395.40		432.49	
		4/10/2007	432.49		34.04		398.45	0.00	398.45			
		7/10/2007	432.49		33.81		398.68	0.00	398.68			
		10/9/2007	432.49		35.52		396.97	0.00	396.97			
SP-52	Rand	1/9/2007	428.99		13.92		415.07	0.00	415.07		428.99	
		4/10/2007	428.99									
		7/10/2007	428.99		16.43		412.56	0.00	412.56			
		10/9/2007	428.99		21.34		407.65	0.00	407.65			
SP-53	EPA	1/9/2007	428.92		24.39		404.53	0.00	404.53		428.92	
		4/10/2007	428.92									
		7/10/2007	428.92		23.99		404.93	0.00	404.93			Odor
		10/9/2007	428.92		32.45		396.47	0.00	396.47			
SP-54	Main	1/9/2007	428.9		33.43		395.47	0.00	395.47		428.9	
		4/10/2007	428.9									
		7/10/2007	428.9		30.14		398.76	0.00	398.76			
		10/9/2007	428.9		31.88		397.02	0.00	397.02			

**TABLE 3**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells (Shell Sites) Outside of Hartford, Illinois*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well	Stratum/Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
SP-55	Rand	1/9/2007	432.31		14.13		418.18	0.00	418.18		432.31	
		4/10/2007	432.31				432.31	0.00				
		7/10/2007	432.31		16.51		415.8	0.00	415.80			
		10/9/2007	432.31		22.2		410.11	0.00	410.11			
SP-56	EPA	1/9/2007	432.21		32.33		399.88	0.00	399.88		432.21	
		4/10/2007	432.21				432.21	0.00				
		7/10/2007	432.21		29.84		402.37	0.00	402.37			
		10/9/2007	432.21		32.84		399.37	0.00	399.37			
SP-57	Main	1/9/2007	432.15		36.61		395.54	0.00	395.54		432.15	
		4/10/2007	432.15				432.15	0.00				
		7/10/2007	432.15		33.36		398.79	0.00	398.79			
		10/9/2007	432.15		35.18		396.97	0.00	396.97			
SP-58	EPA	1/9/2007	431.93		32.72		399.21	0.00	399.21		431.93	
		4/10/2007	431.93		29.59		402.34	0.00	402.34			
		7/10/2007	431.93		30.33		401.6	0.00	401.60			Pressure/Odor
		10/9/2007	431.93		33.02		398.91	0.00	398.91			
SP-59	Main	1/9/2007	431.94		36.7		395.24	0.00	395.24		431.94	
		4/10/2007	431.94	33.81	33.82	398.13	398.12	0.01	398.13			
		7/10/2007	431.94		33.52		398.42	0.00	398.42			
		10/9/2007	431.94		35.13		396.81	0.00	396.81			
SP-60	Main	1/9/2007	432.05		36.76		395.29	0.00	395.29		432.05	
		4/10/2007	432.05		34.01		398.04	0.00	398.04			
		7/10/2007	432.05		33.6		398.45	0.00	398.45			
		10/9/2007	432.05		35.18		396.87	0.00	396.87			
TP-PZ-1	EPA	1/9/2007	437.36		38.08		399.28	0.00	399.28		437.36	
		4/10/2007	437.36		34.74		402.62	0.00	402.62			
		7/10/2007	437.36		34.66		402.7	0.00	402.70		437.36	
		10/9/2007	437.36		37.69		399.67	0.00	399.67			
TP-PZ-2	EPA	1/9/2007	434.43		34.95		399.48	0.00	399.48		434.43	
		4/10/2007	434.43		31.73		402.7	0.00	402.70			
		7/10/2007	434.43		31.88		402.55	0.00	402.55		434.43	
		10/9/2007	434.43		34.91		399.52	0.00	399.52			

**NOTES:**

NA = Not Applicable

[REDACTED] = No data

SG = Specific gravity of hydrocarbon assumed to be 0.74 by others

<sup>1</sup> = Piezometric surface elevation = [(A)-(C)]+S.G.[(C)-(B)]

Well SP-4 no longer exists

TOC elevations (except for SP-42, SP-43, & SP-44) have been rotated and adjusted to match USGS datum (datum used to survey Village wells)

This rotation and adjustment of original survey data (obtained in 7/01 by CMT, Inc.) was completed in 1/04 by CMT. TOC elevations for SP-42,

SP-43, and SP-44 were surveyed to USGS datum in 12/03 by CMT.

TOC elevations have been adjusted for SP-39, SP-40, SP41, SP-42, SP-43, and SP-44. Wells were cut into flush mount wells during 4th QTR 07 and re-gauged.

Top of casing elevation changes present in the table indicate that the associated wells have been re-surveyed

Total Well Depth from January 2006 unless otherwise indicated

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located in Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC)	Comments
DS-1	Main Sand (Shallow)	01/09/07	430.94	34.18	34.30	396.76	396.64	0.12	396.73	34.95	395.99		
		04/11/07	430.94	33.30	33.75	397.64	397.19	0.45	397.54				
		07/11/07	430.94	32.32	32.69	398.62	398.25	0.37	398.54	34.60			
		10/09/07	430.94	33.25	34.31	397.69	396.63	1.06	397.46				
DS-2	Main Sand (Shallow)	01/09/07	431.13	34.19	34.43	396.94	396.70	0.24	396.89	34.85	396.48		
		04/11/07	431.13	33.36	33.98	397.77	397.15	0.62	397.63				
		07/10/07	431.13	32.31	32.50	398.82	398.63	0.19	398.78	34.83			
		10/09/07	431.13	33.46	33.81	397.67	397.32	0.35	397.59				
DS-3	Main Sand (Shallow)	01/09/07	430.49	33.58	34.18	396.91	396.31	0.60	396.78	34.35	396.14		
		04/11/07	430.49	32.76	33.07	397.73	397.42	0.31	397.66				
		07/10/07	430.49	32.49	32.87	397.62	397.54	0.00	397.62		34.50		
		10/09/07	430.49	32.87	32.95	397.62	397.54	0.08	397.60				
DS-4	Main Sand (Shallow)	01/09/07	431.26	34.68	34.78	396.58	396.48	0.10	396.56	34.82	396.44		
		04/11/07	431.26	33.86	34.08	397.40	397.18	0.22	397.35				
		07/10/07	431.26	32.74	32.81	398.52	398.45	0.07	398.50	34.95			
		10/09/07	431.26	33.93	33.95	397.33	397.31	0.02	397.33				
GB-1	Main Sand (Shallow)	01/09/07	431.59	32.05	32.05	399.54	399.54	0.00	399.54	42.04	389.55		
		04/11/07	431.59	31.58	31.58	400.01	400.01	0.00	400.01				
		07/11/07	431.59	31.20	31.20	400.39	400.39	0.00	400.39	41.85			
		10/09/07	431.59	32.10	32.10	399.49	399.49	0.00	399.49				
GB-6	Main Sand (Shallow)	01/09/07	430.53	32.63	32.63	397.90	397.90	0.00	397.90	43.42	387.11	TD= January 2006	
		04/11/07	430.53	32.20	32.20	398.33	398.33	0.00	398.33				
		07/11/07	430.53	31.90	31.90	398.63	398.63	0.00	398.63	43.31			
		10/09/07	430.53	32.59	32.59	397.94	397.94	0.00	397.94				
LP-4	Main Sand (Shallow)	01/09/07	432.55	34.87	34.87	397.68	397.68	0.00	397.68	42.21	390.34		
		04/11/07	432.55	34.14	34.14	398.41	398.41	0.00	398.41				
		07/11/07	432.55	33.29	33.29	399.26	399.26	0.00	399.26	42.10			
		10/09/07	432.55	34.21	34.21	398.34	398.34	0.00	398.34				
MP-1S	N. Olive	01/09/07	431.37	26.85	26.85	403.81	403.81	0.00	403.81		431.37		
		04/10/07	431.37	26.85	26.85	403.81	403.81	0.00	403.81				
		07/10/07	431.37	26.85	26.85	403.81	403.81	0.00	403.81				
		10/09/07	431.37	26.85	26.85	403.81	403.81	0.00	403.81				
MP-1D	EPA	01/09/07	431.04	26.85	26.85	403.81	403.81	0.00	403.81		431.04		
		04/10/07	431.04	26.85	26.85	403.81	403.81	0.00	403.81				
		07/10/07	431.04	26.85	26.85	403.81	403.81	0.00	403.81				
		10/09/07	431.04	26.85	26.85	403.81	403.81	0.00	403.81				
MP-2S	N. Olive	01/09/07	430.66	26.85	26.85	403.81	403.81	0.00	403.81	27.22	403.44		
		04/10/07	430.66	26.85	26.85	403.81	403.81	0.00	403.81				
		07/10/07	430.66	26.85	26.85	403.81	403.81	0.00	403.81				
		10/09/07	430.66	26.85	26.85	403.81	403.81	0.00	403.81				
MP-2D	EPA	01/09/07	430.27	33.65	33.65	396.62	396.62	0.00	396.62	TD= January 2007			
		04/10/07	430.27	33.65	33.65	396.62	396.62	0.00	396.62				
		07/10/07	430.27	33.65	33.65	396.62	396.62	0.00	396.62				
		10/09/07	430.27	33.65	33.65	396.62	396.62	0.00	396.62				

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
**Wells Located in Premcor Facility**

1190500002 -- Madison County -- ILD041889023  
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC)	Comments
MP-3S	N. Olive	01/09/07	430.59							27.01	403.58		
		04/10/07	430.59										
		07/10/07	430.59										
		10/09/07	430.59										
MP-3D	EPA	01/09/07	430.51							33.60	396.91		
		04/10/07	430.51										
		07/10/07	430.51										
		10/09/07	430.51										
MP-4S	N. Olive	01/09/07	430.42		25.51		404.91	0.00	404.91	26.53	403.89	TD= January 2006	
		04/10/07	430.42										
		07/10/07	430.42										
		10/09/07	430.42										
MP-4D	EPA	01/09/07	430.42					0.00		33.87	396.55	TD= January 2007	
		04/10/07	430.42	31.59		398.83		2.29		33.88			
		07/10/07	430.42	30.88	33.52	399.54	396.90	2.64	398.96	33.85			
		10/09/07	430.42	33.55	33.84	396.87	396.58	0.29	396.81				
MW-1	Main Sand (Shallow)	01/09/07	420.39		18.18		402.21	0.00	402.21	27.06	393.33		
		04/11/07	420.39		9.67		410.72	0.00	410.72				
		07/11/07	420.39		16.53		403.86	0.00	403.86	27.10			
		10/09/07	420.39		18.79		401.60	0.00	401.60				
MW-2	Main Sand (Shallow)	01/09/07	419.10		17.61		401.49	0.00	401.49	25.59	393.51		
		04/11/07	419.10		9.03		410.07	0.00	410.07				
		07/11/07	419.10		16.05		403.05	0.00	403.05	24.98			
		10/09/07	419.10		17.64		401.46	0.00	401.46				
MW-3	Main Sand (Shallow)	01/09/07	421.37		20.10		401.27	0.00	401.27	26.11	395.26		
		04/11/07	421.37		11.37		410.00	0.00	410.00				
		07/11/07	421.37		18.30		403.07	0.00	403.07	26.65			
		10/09/07	421.37		20.00		401.37	0.00	401.37				
MW-4	Main Sand (Shallow)	01/09/07	421.38		20.40		400.98	0.00	400.98	27.95	393.43		
		04/11/07	421.38		11.77		409.61	0.00	409.61				
		07/11/07	421.38		18.21		403.17	0.00	403.17	27.99			
		10/09/07	421.38		20.31		401.07	0.00	401.07				
P-6 N	Main Sand (Basal)	01/09/07	430.29		34.94		395.35	0.00	395.35	100.00	330.29		
		04/10/07	430.29		32.43		397.86	0.00	397.86				
		07/10/07	430.29		31.64		398.65	0.00	398.65	102.00			
		10/09/07	430.29		33.36		396.93	0.00	396.93				
P-6 S	Main Sand (Basal)	01/09/07	430.28		34.95		395.33	0.00	395.33	95.10	335.18		
		04/10/07	430.28		32.44		397.84	0.00	397.84				
		07/10/07	430.28		31.63		398.65	0.00	398.65	96.13			
		10/09/07	430.28		33.36		396.92	0.00	396.92				
P-6 E	Main Sand (Basal)	01/09/07	429.73	34.06	35.76	395.67	393.97	1.70	395.30	91.80	337.93		
		04/10/07	429.73	33.50	35.17	396.23	394.56	1.67	395.86				
		07/10/07	429.73	30.86	32.49	398.87	397.24	1.63	398.51	93.05			
		10/09/07	429.73	32.58	34.20	397.15	395.53	1.62	396.79				

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
Product Pipeline	NA	01/09/07			12.90			0.00		14.50		TD= January 2006
		04/10/07			12.58			0.00				
		07/10/07			12.45			0.00		14.20		
		10/09/07			14.00			0.00				
RB-01	Main Sand (Shallow)	01/09/07	430.28					0.00		33.55	396.73	TD= January 2007
		04/10/07	430.28		32.79		397.49	0.00	397.49			
		07/10/07	430.28		31.04		399.24	0.00	399.24	33.55		
		10/09/07	430.28		32.46		397.82	0.00	397.82			
RB-08P  Skimmer Well	EPA / Main	01/09/07	433.41	34.66	37.49	398.75	395.92	2.83	398.13		433.41	
		04/10/07	433.41	32.18	36.72	401.23	396.69	4.54	400.23			
		07/10/07	433.41	30.67	36.94	402.74	396.47	6.27	401.36	72.00		
		10/09/07	432.39	32.78	39.78	399.61	392.61	7.00	398.07			
RB-08  2" piezometer	EPA / Main	01/09/07		23.79				5.77		29.56	-29.56	TD= January 2007
		04/10/07		22.54				7.00		29.54		
		07/10/07		21.36				8.23		29.59		
		10/09/07	433.42	24.37		409.05		5.21		29.58		
RB-10	EPA / Main	01/09/07	430.16	32.70	39.23	397.46	390.93	6.53	396.02	46.56	383.60	
		04/11/07	430.16		32.01		398.15	0.00	398.15			
		07/10/07	430.16	31.03	31.51	399.13	398.65	0.48	399.02	46.64		
		10/09/07	430.16	32.66	32.75	397.50	397.41	0.09	397.48			
RB-13	EPA / Main	01/09/07	430.79		33.84		396.95	0.00	396.95	45.03	385.76	
		04/10/07	430.79		32.38		398.41	0.00	398.41			
		07/10/07	430.79		30.08		400.71	0.00	400.71	45.09		
		10/09/07	430.79		32.16		398.63	0.00	398.63			
RB-22	Main Sand (Shallow)	01/10/07	431.06		32.85		398.21	0.00	398.21	32.83	398.23	
		04/11/07	431.06		32.13		398.93	0.00	398.93			
		07/10/07	431.06		30.33		400.73	0.00	400.73	32.78		
		10/09/07	431.06		32.41		398.65	0.00	398.65			
RB-25	EPA / Main	01/09/07	432.10		35.93		396.17	0.00	396.17	47.38	384.72	
		04/10/07	432.10		33.91		398.19	0.00	398.19			
		07/10/07	432.10		33.41		398.69	0.00	398.69	47.60		
		10/09/07	432.10		34.43		397.67	0.00	397.67			
RB-26	EPA / Main	01/09/07	430.05		34.10		395.95	0.00	395.95	49.27	380.78	
		04/10/07	430.05		31.82		398.23	0.00	398.23			
		07/10/07	430.05		30.50		399.55	0.00	399.55	49.25		
		10/09/07	430.05		32.26		397.79	0.00	397.79			
RB-29	N. Olive	01/09/07	431.97	14.20	14.51	417.77	417.46	0.31	417.70	21.87	410.10	
		04/11/07	431.97	12.82	12.98	419.15	418.99	0.16	419.11			
		07/10/07	431.97	13.65	13.84	418.32	418.13	0.19	418.28	21.97		
		10/09/07	431.97	15.55	15.85	416.42	416.12	0.30	416.35			
RB-30	Main Sand (Shallow)	01/09/07	431.94		35.39		396.55	0.00	396.55	46.23	385.71	
		04/11/07	431.94		33.78		398.16	0.00	398.16			
		07/10/07	431.94		32.87		399.07	0.00	399.07	46.22		
		10/09/07	431.94		34.12		397.82	0.00	397.82			

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RB-35	EPA / Main	01/09/07	429.49	32.18	35.56	397.31	393.93	3.38	396.57	44.85	384.64	TD= January 2006	
		04/10/07	429.49	30.72	32.05	398.77	397.44	1.33	398.48				
		07/10/07	429.49	28.17	34.35	401.32	395.14	6.18	399.96	44.96			
		10/09/07	429.49	30.85	33.68	398.64	395.81	2.83	398.02				
RB-36	N. Olive	01/09/07	429.21	22.03	24.55	407.18	407.18	0.00	407.18	27.24	401.97		
		04/10/07	429.21	21.59	17.59	411.62	411.62	0.00	411.62				
		07/10/07	429.21	21.59	18.72	410.49	410.49	0.00	410.49	27.27			
		10/09/07	429.21	21.59	23.46	405.75	405.75	0.00	405.75				
RB-37	Main Sand (Shallow)	01/09/07	428.52				Skimmer Pump in Well			60.83	367.69	TD= January 2006	
		04/10/07	428.52				Skimmer Pump in Well						
		07/10/07	428.52	29.40	32.05	399.12	396.47	2.65	398.54	60.81			
		10/09/07	428.52				Skimmer Pump in Well						
RB-38	Main Sand (Shallow)	01/09/07	433.73	37.97	395.76	0.00	395.76		52.90	380.83			
		04/11/07	433.73	36.64	397.09	0.00	397.09		52.90				
		07/10/07	433.73	35.81	397.92	0.00	397.92		52.91				
		10/09/07	433.73	36.84	396.89	0.00	396.89						
RB-39	EPA / Main	01/09/07	431.54	32.97	398.57	0.00	398.57		45.30	386.24	TD= January 2006		
		04/10/07	431.54	29.83	401.71	0.00	401.71						
		07/10/07	431.54	29.38	402.16	0.00	402.16		45.06				
		10/09/07	431.54	32.02	399.52	0.00	399.52						
RB-40	Main Sand (Shallow)	01/09/07	433.51	37.48	396.03	0.00	396.03			433.51			
		04/11/07	433.51	36.55	396.96	0.00	396.96						
		07/11/07	433.51	35.80	397.71	0.00	397.71		36.70				
		10/09/07	433.51	36.53	396.98	0.00	396.98						
RB-41	Main Sand (Shallow)	01/09/07	433.25	37.23	396.02	0.00	396.02		47.08	386.17	TD= January 2006		
		04/11/07	433.25	36.63	396.62	0.00	396.62						
		07/11/07	433.25	36.00	397.25	0.00	397.25		46.94				
		10/09/07	433.25	37.57	395.68	0.00	395.68						
RB-42	Main Sand (Shallow)	01/09/07	428.47	32.83	395.64	0.00	395.64		44.56	383.91	TD= January 2006		
		04/11/07	428.47	31.35	397.12	0.00	397.12						
		07/11/07	428.47	31.00	397.47	0.00	397.47		44.75				
		10/09/07	428.47	31.60	396.87	0.00	396.87						
RB-43	Main Sand (Shallow)	01/09/07	427.99	26.41	401.58	0.00	401.58		36.85	391.14	TD= January 2006		
		04/11/07	427.99	28.10	399.89	0.00	399.89						
		07/11/07	427.99	27.80	400.19	0.00	400.19		36.71				
		10/09/07	427.99	28.57	399.42	0.00	399.42						
RB-44	Main Sand (Shallow)	01/09/07	432.99	34.05	398.94	0.00	398.94		41.21	391.78	TD= January 2006		
		04/11/07	432.99	33.41	399.58	0.00	399.58						
		07/11/07	432.99	32.60	400.39	0.00	400.39		41.01				
		10/09/07	432.99	33.66	399.33	0.00	399.33						
RB-45	Main Sand (Shallow)	01/09/07	431.95	33.54	398.41	0.00	398.41		44.45	387.50			
		04/11/07	431.95	32.53	399.42	0.00	399.42						
		07/11/07	431.95	31.64	400.31	0.00	400.31		46.00				
		10/09/07	431.95	32.75	399.20	0.00	399.20						

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Well	Stratum Screened	Date	(A) Top-of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
RB-46	Main Sand (Shallow)	01/10/07	430.61		33.35		397.26	0.00	397.26	41.46	389.15	TD= January 2006
		04/11/07	430.61		31.58		399.03	0.00	399.03			
		07/10/07	430.61		30.15		400.46	0.00	400.46	40.98		
		10/09/07	430.61		31.98		398.63	0.00	398.63			
RB-47	Main Sand (Shallow)	01/10/07	431.05		34.13		396.92	0.00	396.92	42.53	388.52	
		04/11/07	431.05		32.21		398.84	0.00	398.84			
		07/10/07	431.05		30.74		400.31	0.00	400.31	42.14		
		10/09/07	431.05		32.71		398.34	0.00	398.34			
RB-48	Main Sand (Shallow)	01/10/07	431.36			Skimmer Pump in Well				37.33	394.03	TD= January 2006
		04/11/07	431.36			Skimmer Pump in Well						
		07/10/07	431.36	28.91	31.36	402.45	400.00	2.45	401.91	37.37		TD= 7/11/07
		10/09/07	431.36			Skimmer Pump in Well						
RB-49	A Clay	01/10/07	429.32		3.28		426.04	0.00	426.04	44.83	384.49	
		04/11/07	429.32		2.41		426.91	0.00	426.91			
		07/10/07	429.32		5.51		423.81	0.00	423.81	45.19		
		10/09/07	429.32		6.31		423.01	0.00	423.01			
RB-50	A Clay	01/10/07	431.47		5.29		426.18	0.00	426.18	42.98	388.49	TD= January 2006
		04/11/07	431.47		3.87		427.60	0.00	427.60			
		07/10/07	431.47		4.45		427.02	0.00	427.02	47.02		
		10/09/07	431.47		9.69		421.78	0.00	421.78			
RB-51	Main Sand (Shallow)	01/10/07	431.54		32.94		398.60	0.00	398.60	37.54	394.00	TD= January 2006
		04/11/07	431.54		30.09		401.45	0.00	401.45			
		07/10/07	431.54		29.05		402.49	0.00	402.49	42.91		TD= 7/11/07
		10/09/07	431.54		31.31		400.23	0.00	400.23			
RB-52	Main Sand (Shallow)	01/09/07	431.97			Skimmer Pump In Well				43.87	388.10	
		04/10/07	431.97			Skimmer Pump In Well						
		07/10/07	431.97	32.00	33.20	399.97	398.77	1.20	399.71	44.15		
		10/09/07	431.97			Skimmer Pump In Well						
RB-53	EPA / Main	01/09/07	433.31			Skimmer Pump in Well				44.65	388.66	TD= January 2006
Barotroll		04/10/07	433.31			Skimmer Pump in Well				44.65		
		07/10/07	433.31	33.80	38.06	399.51	395.25	4.26	398.57	44.47		
		10/09/07	433.31			Skimmer Pump in Well						
RB-54	EPA	01/09/07	431.79		24.20		407.59	0.00	407.59	41.34	390.45	
		04/10/07	431.79		21.59		410.20	0.00	410.20			
		07/11/07	431.79		21.70		410.09	0.00	410.09	40.44		
		10/09/07	431.79		27.54		404.25	0.00	404.25			
RB-55	EPA	01/09/07	433.82			Skimmer Pump in Well				41.13	392.69	TD= January 2006
		04/10/07	433.82			Skimmer Pump in Well						
		07/10/07	433.82	31.97	37.51	401.85	396.31	5.54	400.63	41.32		
		10/09/07	433.82			Skimmer Pump in Well						
RB-56	EPA / Main	01/09/07	431.89			Skimmer Pump in Well				49.47	382.42	TD= January 2006
		04/10/07	431.89			Skimmer Pump in Well						
		07/10/07	431.89	32.34	35.54	399.55	396.35	3.20	398.85	46.45		
		10/09/07	431.89			Skimmer Pump in Well						

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Well	Stratum Screened	Date Screened	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon Surface (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMP-5A	A Clay		431.08								431.08	
RMP-5B	N. Olive	01/09/07	430.96		18.00		412.96	0.00	412.96	18.08	412.88	
		04/10/07	430.96		18.02		412.94	0.00	412.94			
		07/10/07	430.96		18.02		412.94	0.00	412.94	18.10		
		10/09/07	430.96		18.04		412.92	0.00	412.92			
RMP-5C	EPA	01/09/07	431.24		36.41		394.83	0.00	394.83	41.39	389.85	
		04/10/07	431.24		33.67		397.57	0.00	397.57			
		07/10/07	431.24		32.45		398.79	0.00	398.79	41.40		
		10/09/07	431.24		34.56		396.68	0.00	396.68			
RMP-5D	Main Sand (below D Clay)	01/09/07	431.41		36.51		394.90	0.00	394.90	54.09	377.32	
		04/10/07	431.41		33.20		398.21	0.00	398.21			
		07/10/07	431.41		33.03		398.38	0.00	398.38	54.10		
		10/09/07	431.41		34.88		396.53	0.00	396.53			
RMP-6A	A Clay		430.08								430.08	
RMP-6B	N. Olive	01/09/07	429.97							17.13	412.84	TD= January 2007
		04/10/07	429.97							17.14		
		07/10/07	429.97		16.76		413.21	0.00	413.21	17.13		
		10/09/07	429.97							17.15		
RMP-6C	EPA	01/09/07	429.88		34.08		395.80	0.00	395.80	36.63	393.25	
		04/10/07	429.88		32.36		397.52	0.00	397.52			
		07/10/07	429.88		30.31		399.57	0.00	399.57	36.63		
		10/09/07	429.88		32.08		397.80	0.00	397.80			
RMP-6D	Main Sand (below D Clay)	01/09/07	430.26		34.84		395.42	0.00	395.42	54.29	375.97	
		04/10/07	430.26		32.31		397.95	0.00	397.95			
		07/10/07	430.26		31.50		398.76	0.00	398.76	53.63		
		10/09/07	430.26		33.26		397.00	0.00	397.00			
RMP-7A	A Clay		430.50								430.50	
RMP-7B	N. Olive	01/09/07	430.58							17.69	412.89	TD= January 2007
		04/10/07	430.58							17.71		
		07/10/07	430.58							17.69		
		10/09/07	430.58							17.72		
RMP-7C	EPA	01/09/07	430.49	34.75	36.83	395.74	393.66	2.08	395.28	40.04	390.45	
		04/10/07	430.49		32.91		397.58	0.00	397.58			
		07/10/07	430.49		31.36		399.13	0.00	399.13	40.05		
		10/09/07	430.49	33.34	33.35	397.15	397.14	0.01	397.15			
RMP-7D	Main Sand (below D Clay)	01/09/07	430.56		35.24		395.32	0.00	395.32	52.82	377.74	
		04/10/07	430.56		32.65		397.91	0.00	397.91			
		07/10/07	430.56		31.85		398.71	0.00	398.71	52.88		
		10/09/07	430.56		33.64		396.92	0.00	396.92			
RMP-8A	A Clay		433.44								433.44	
RMP-8B	N. Olive	01/09/07	433.42							19.84	413.58	TD= January 2007
		04/10/07	433.42							19.85		
		07/10/07	433.42							19.86		
		10/09/07	433.42							19.86		

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
**Wells Located in Premcor Facility**

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
RMP-8C	EPA	01/09/07	433.37		37.00		396.37	0.00	396.37	42.23	391.14	
		04/10/07	433.37		35.90		397.47	0.00	397.47			
		07/10/07	433.37		33.27		400.10	0.00	400.10	42.25		
		10/09/07	433.37		34.95		398.42	0.00	398.42			
RMP-8D	Main Sand (below D Clay)	01/09/07	433.33		37.74		395.59	0.00	395.59	56.08	377.25	
		04/10/07	433.33		35.31		398.02	0.00	398.02			
		07/10/07	433.33		34.39		398.94	0.00	398.94	56.11		
		10/09/07	433.33		36.11		397.22	0.00	397.22			
RMP-9A	A Clay		434.15								434.15	
RMP-9B	N. Olive	01/09/07	433.95		20.87		413.08	0.00	413.08	20.89	413.06	
		04/10/07	433.95								20.92	
		07/10/07	433.95								20.92	
		10/09/07	433.95								20.93	
RMP-9C	Main Sand (Shallow)	01/09/07 ***	435.93			H2A Present				49.16	386.77	
		04/10/07	434.20	35.77	36.24	398.43	397.96	0.47	398.33			
		07/10/07	434.20	34.63	36.70	399.57	397.50	2.07	399.11	50.26		
		10/09/07	434.20	36.58	38.13	397.62	396.07	1.55	397.28			
RMP-10A	A Clay		430.70								430.70	
RMP-10B	N. Olive	01/09/07	430.70								17.85	412.85
		04/10/07	430.70		17.68		413.02	0.00	413.02			
		07/10/07	430.70								17.82	
		10/09/07	430.70		17.84		412.86	0.00	412.86			
RMP-10C	Main Sand (Shallow)	01/09/07	430.74	34.51	36.31	396.23	394.43	1.80	395.83	45.03	385.71	
		04/10/07	430.74	NA	32.29	NA	398.45	0.00	398.45			
		07/10/07	430.74	31.46	31.55	399.28	399.19	0.09	399.26	45.00		
		10/09/07	430.74	32.88	34.75	397.86	395.99	1.87	397.45			
RMP-11A	A Clay		429.73								429.73	
RMP-11B	N. Olive	01/09/07	429.81								18.32	411.49
		04/10/07	429.81									
		07/10/07	429.81								18.33	
		10/09/07	429.81		18.34		411.47	0.00	411.47			
RMP-11C	Main Sand (Shallow)	1/9/07 ***	432.30	36.19	38.23	396.11	394.07	2.04	395.66	44.02	388.28	
		04/01/07	429.82	31.30	31.71	398.52	398.11	0.41	398.43			
		07/10/07	429.82	NA	30.62	NA	399.20	0.00	399.20	43.97		
		10/09/07	429.82	31.90	33.89	397.92	395.93	1.99	397.48			
RMP-12A	A Clay		430.47								430.47	
RMP-12B	N. Olive	01/09/07	430.45		17.01		413.44	0.00	413.44	18.45	412.00	
		04/10/07	430.45									
		07/10/07	430.45								18.47	
		10/09/07	430.45									
RMP-12C	Main Silt		430.26								430.26	
RMP-12D	Main Sand	01/09/07	430.35		34.25		396.10	0.00	396.10	48.93	381.42	
		04/10/07	430.35		31.61		398.74	0.00	398.74			
		07/10/07	430.35		30.72		399.63	0.00	399.63	48.90		
		10/09/07	430.35		32.33		398.02	0.00	398.02			

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1190500002 -- Madison County -- ILD041889023  
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Total Well Depth (TOC) (ft)	Comments
RMP-13A	A Clay		431.28								431.28		
RMP-13B	Main Silt		431.30								431.30		
RMP-13C	Main Silt	01/09/07	431.32		33.78		397.54	0.00	397.54	40.00	391.32		
		04/10/07	431.32		32.66		398.66	0.00	398.66				
		07/10/07	431.32		31.00		400.32	0.00	400.32	41.11			
		10/09/07	431.32		33.21		398.11	0.00	398.11				
RMP-14A	A Clay		430.30								430.30		
RMP-14B	Main Silt		430.30								430.30		
RMP-14C	Main Sand (Shallow)	01/09/07	430.64	33.35	39.23	397.29	391.41	5.88	396.00	40.36	390.28		
		04/10/07	430.64	30.81	36.88	399.83	393.76	6.07	398.49				
		07/10/07	430.64	29.35	38.62	401.29	392.02	9.27	399.25	40.47			
		10/09/07	430.64	31.50	39.09	399.14	391.55	7.59	397.47				
RMP-15A	A Clay		433.63								433.63		
RMP-15B	N. Olive	01/09/07	433.77		20.78		412.99	0.00	412.99	20.86	412.91		
		04/10/07	433.77		20.80		412.97	0.00	412.97				
		07/10/07	433.77		20.81		412.96	0.00	412.96	20.90			
		10/09/07	433.77		20.86		412.91	0.00	412.91	20.90			
RMP-16A	A Clay		433.97								433.97		
RMP-16B	EPA	01/09/07	434.13		38.86		395.27	0.00	395.27	41.04	393.09		
		04/10/07	434.13		36.30		397.83	0.00	397.83				
		07/11/07	434.13	34.82	37.55	399.31	396.58	2.73	398.71	41.09			
		10/09/07	434.13	36.75	38.40	397.38	395.73	1.65	397.02				
RMP-17A	Main Sand (Shallow)	01/09/07	434.20	38.30	39.91	395.90	394.29	1.61	395.55	44.65	389.55		
		04/10/07	434.20	35.80	36.29	398.40	397.91	0.49	398.29				
		07/11/07	434.20	35.48	35.81	398.72	398.39	0.33	398.65	44.68			
		10/09/07	434.20	36.68	38.35	397.52	395.85	1.67	397.15				
RMP-18A	Main Sand (Shallow)	01/09/07	430.07	33.88	35.53	396.19	394.54	1.65	395.83	40.08	389.99		
		04/10/07	430.07	31.59	32.09	398.48	397.98	0.50	398.37				
		07/10/07	430.07	30.55	31.79	399.52	398.28	1.24	399.25	40.08			
		10/09/07	430.07	32.30	33.84	397.77	396.23	1.54	397.43				
RMP-19A	Main Sand (Shallow)	01/09/07	430.41	34.08	35.68	396.33	394.73	1.60	395.98	42.10	388.31		
		04/10/07	430.41	31.79	32.05	398.62	398.36	0.26	398.56				
		07/10/07	430.41	30.81	31.35	399.60	399.06	0.54	399.48	42.11			
		10/10/07	430.41	32.74	32.96	397.67	397.45	0.22	397.62				
RMW-1A	A Clay	01/09/07	429.78		10.09		419.69	0.00	419.69	10.34	419.44		
		04/10/07	429.78		10.09		419.69	0.00	419.69				
		07/10/07	429.78		10.12		419.66	0.00	419.66	10.30			
		10/09/07	429.78		10.10		419.68	0.00	419.68				
RMW-1B	Main Silt	01/09/07	429.72	26.11	26.20	403.61	403.52	0.09	403.59	26.68	403.04	TD= January 2006	
		04/10/07	429.72		26.21		403.51	0.00	403.51				
		07/10/07	429.72		26.20		403.52	0.00	403.52	26.75			
		10/09/07	429.72		26.20		403.52	0.00	403.52				

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Comments
RMW-1C	(Shallow)	01/09/07	429.48	32.90	33.19	396.58	396.29	0.29	396.52	40.55	388.93	
		04/10/07	429.48	30.04	30.73	399.44	398.75	0.69	399.29			
		07/10/07	429.48	28.37	33.48	401.11	396.00	5.11	399.99	40.70		
		10/09/07	429.48	30.73	34.19	398.75	395.29	3.46	397.99			
RMW-1D	(Intermediate)	01/09/07	429.66	33.16	33.16	396.50	396.50	0.00	396.50	64.96	364.70	TD= January 2006
		04/10/07	429.66	30.38	30.38	399.28	399.28	0.00	399.28			
		07/11/07	429.66	29.83	29.83	399.83	399.83	0.00	399.83	64.85		
		10/09/07	429.66	31.58	31.58	398.08	398.08	0.00	398.08			
RMW-1E	(Deep)	01/09/07	429.63	33.21	33.21	396.42	396.42	0.00	396.42	85.06	344.57	TD= January 2006
		04/10/07	429.63	30.42	30.42	399.21	399.21	0.00	399.21			
		07/11/07	429.63	29.52	29.52	400.11	400.11	0.00	400.11	84.86		
		10/09/07	429.63	31.57	31.57	398.06	398.06	0.00	398.06			
RMW-1F	(Basal)	01/09/07	429.43	33.00	33.00	396.43	396.43	0.00	396.43	106.56	322.87	TD= January 2006
		04/10/07	429.43	30.21	30.21	399.22	399.22	0.00	399.22			
		07/11/07	429.43	29.35	29.35	400.08	400.08	0.00	400.08	106.41		
		10/09/07	429.43	31.35	31.35	398.08	398.08	0.00	398.08			
RMW-2A	N. Olive	01/09/07	433.64	21.89	21.89	411.75	411.75	0.00	411.75	22.01	411.63	
		04/10/07	433.64	21.90	21.90	411.74	411.74	0.00	411.74			
		07/10/07	433.64	21.87	21.87	411.77	411.77	0.00	411.77	22.01		
		10/10/07	433.64	21.90	21.90	411.74	411.74	0.00	411.74			
RMW-2B	(Permeable Lens)	01/09/07	433.64	26.84	26.84	406.80	406.80	0.00	406.80	27.55	406.09	
		04/10/07	433.64	26.10	26.10	407.54	407.54	0.00	407.54			
		07/10/07	433.64	25.84	25.84	407.80	407.80	0.00	407.80	27.55		
		10/09/07	433.64	26.21	26.21	407.43	407.43	0.00	407.43			
RMW-2C	(Shallow)	01/09/07	433.34	37.05	38.41	396.29	394.93	1.36	395.99	50.37	382.97	
		04/10/07	433.34	34.60	35.17	398.74	398.17	0.57	398.61			
		07/10/07	433.34	33.64	35.59	399.70	397.75	1.95	399.27	50.41		
		10/09/07	433.34	35.50	36.46	397.84	396.88	0.96	397.63			
RMW-2D	(Intermediate)	01/09/07	433.41	37.21	37.21	396.20	396.20	0.00	396.20	67.75	365.66	TD= January 2006
		04/10/07	433.41	34.62	34.62	398.79	398.79	0.00	398.79			
		07/10/07	433.41	33.80	33.80	399.61	399.61	0.00	399.61	67.70		
		10/09/07	433.41	35.71	35.71	397.70	397.70	0.00	397.70			
RMW-2E	(Deep)	01/09/07	433.54	37.34	37.34	396.20	396.20	0.00	396.20	88.36	345.18	TD= January 2006
		04/10/07	433.54	34.78	34.78	398.76	398.76	0.00	398.76			
		07/10/07	433.54	33.95	33.95	399.59	399.59	0.00	399.59	88.31		
		10/09/07	433.54	35.85	35.85	397.69	397.69	0.00	397.69			
RMW-2F	(Basal)	01/09/07	433.64	37.53	37.53	396.11	396.11	0.00	396.11	113.31	320.33	TD= January 2006
		04/10/07	433.64	34.89	34.89	398.75	398.75	0.00	398.75			
		07/10/07	433.64	34.03	34.03	399.61	399.61	0.00	399.61	113.18		
		10/09/07	433.64	35.96	35.96	397.68	397.68	0.00	397.68			
RMW-3A	N. Olive	01/09/07	434.10	22.25	22.25	411.85	411.85	0.00	411.85	22.54	411.56	
		04/10/07	434.10	22.30	22.29	411.80	411.80	0.00	411.80			
		07/10/07	434.10	22.29	22.29	411.81	411.81	0.00	411.81	22.56		
		10/09/07	434.10	22.29	22.29	411.81	411.81	0.00	411.81			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
RMW-3B	EPA / Main	01/09/07	434.01	38.52	39.61	395.49	394.40	1.09	395.25	47.35	386.66		
		04/10/07	434.01	35.71	35.87	398.30	398.14	0.16	398.26				
		07/10/07	434.01	34.74	37.21	399.27	396.80	2.47	398.73	47.35			
		10/09/07	434.01	36.80	38.31	397.21	395.70	1.51	396.88				
RMW-3C	Main Sand (below D Clay)	01/09/07	434.21	38.83	38.83	395.38	395.38	0.00	395.38	54.15	380.06		
		04/10/07	434.21	35.79	35.79	398.42	398.42	0.00	398.42				
		07/10/07	434.21	34.44	34.44	399.77	399.77	0.00	399.77	54.18			
		10/09/07	434.21	37.28	37.28	396.93	396.93	0.00	396.93				
RMW-4A	N. Olive	01/09/07	433.02	20.09	20.09	412.93	412.93	0.00	412.93	21.53	411.49		
		04/10/07	433.02	19.63	19.63	413.39	413.39	0.00	413.39				
		07/10/07	433.02	18.08	18.08	414.94	414.94	0.00	414.94	21.56			
		10/09/07	433.02	19.89	19.89	413.13	413.13	0.00	413.13				
RMW-4B	EPA	01/09/07	433.07	35.03	35.03	398.04	398.04	0.00	398.04	44.56	388.51		
		04/10/07	433.07	33.08	33.08	399.99	399.99	0.00	399.99				
		07/10/07	433.07	32.10	32.10	400.97	400.97	0.00	400.97	44.59			
		10/09/07	433.07	33.87	33.87	399.20	399.20	0.00	399.20				
RMW-4C	Main Sand (below D Clay)	01/09/07	433.11	37.53	37.53	395.58	395.58	0.00	395.58	57.27	375.84		
		04/10/07	433.11	35.38	35.38	397.73	397.73	0.00	397.73				
		07/10/07	433.11	34.35	34.35	398.76	398.76	0.00	398.76	57.30		TD= 7/11/07	
		10/09/07	433.11	36.02	36.02	397.09	397.09	0.00	397.09				
RMW-4D	Main Sand (Intermediate)	01/09/07	432.83	37.29	37.29	395.54	395.54	0.00	395.54	75.64	357.19	TD= January 2006	
		04/10/07	432.83	35.01	35.01	397.82	397.82	0.00	397.82				
		07/10/07	432.83	34.00	34.00	398.83	398.83	0.00	398.83	74.99			
		10/09/07	432.83	35.71	35.71	397.12	397.12	0.00	397.12				
RMW-4E	Main Sand (Deep)	01/09/07	432.82	37.26	37.26	395.56	395.56	0.00	395.56	94.28	338.54		
		04/10/07	432.82	34.97	34.97	397.85	397.85	0.00	397.85				
		07/10/07	432.82	34.01	34.01	398.81	398.81	0.00	398.81	94.30			
		10/09/07	432.82	35.69	35.69	397.13	397.13	0.00	397.13				
RMW-4F	Main Sand (Basal)	01/09/07	432.37	36.80	36.80	395.57	395.57	0.00	395.57		432.37		
		04/10/07	432.37	34.51	34.51	397.86	397.86	0.00	397.86				
		07/10/07	432.37	33.64	33.64	398.73	398.73	0.00	398.73	113.30			
		10/09/07	432.37	35.25	35.25	397.12	397.12	0.00	397.12				
RMW-5A	N. Olive	01/09/07	431.85	21.25	21.25	410.60	410.60	0.00	410.60	21.67	410.18		
		04/10/07	431.85	19.15	19.15	412.70	412.70	0.00	412.70				
		07/10/07	431.85	21.25	21.25	410.60	410.60	0.00	410.60	21.68			
		10/09/07	431.85	21.27	21.27	410.58	410.58	0.00	410.58				
RMW-5B	EPA	01/09/07	431.78	33.22	33.22	398.56	398.56	0.00	398.56	45.30	386.48		
		04/10/07	431.78	30.10	30.10	401.68	401.68	0.00	401.68				
		07/10/07	431.78	29.50	29.50	402.28	402.28	0.00	402.28	44.98			
		10/09/07	431.78	32.35	32.35	399.43	399.43	0.00	399.43				
RMW-5C	Main Sand (below D Clay)	01/09/07	431.78	36.15	36.15	395.63	395.63	0.00	395.63	56.96	374.82		
		04/10/07	431.78	33.84	33.84	397.94	397.94	0.00	397.94				
		07/10/07	431.78	33.04	33.04	398.74	398.74	0.00	398.74	56.73			
		10/09/07	431.78	34.67	34.67	397.11	397.11	0.00	397.11				

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
**Wells Located in Premcor Facility**

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)*	(B) Depth to Top Hydrocarbon (ft)	(C) Depth to Water Surface (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMW-6A	N. Olive	01/09/07	430.40		17.95		412.45	0.00	412.45	18.29	412.11	
		04/10/07	430.40		17.95		412.45	0.00	412.45			
		07/10/07	430.40		17.90		412.50	0.00	412.50	18.26		
		10/09/07	430.40		17.96		412.44	0.00	412.44			
RMW-6B	B/C Clay (Permeable Lens)	01/09/07	430.39		21.12		409.27	0.00	409.27	24.98	405.41	
		04/10/07	430.39		19.90		410.49	0.00	410.49			
		07/10/07	430.39		22.95		407.44	0.00	407.44	24.95		
		10/09/07	430.39		24.70		405.69	0.00	405.69			
RMW-6C	Main Sill	01/09/07	430.37		30.52		399.85	0.00	399.85	30.72	399.65	
		04/10/07	430.37		30.52		399.85	0.00	399.85			
		07/10/07	430.37		29.35		401.02	0.00	401.02	30.70		
		10/09/07	430.37		30.49		399.88	0.00	399.88			
RMW-6D	Main Sand (Shallow)	01/09/07	430.41		34.35		396.06	0.00	396.06	47.03	383.38	
		04/10/07	430.41		33.63		396.78	0.00	396.78			
		07/10/07	430.41		31.73		398.68	0.00	398.68	47.05		
		10/09/07	430.41		33.25		397.16	0.00	397.16			
RMW-6E	Main Sand (Intermediate)	01/09/07	430.02		34.41		395.61	0.00	395.61		430.02	
		04/10/07	430.02		32.52		397.50	0.00	397.50			
		07/10/07	430.02		31.56		398.46	0.00	398.46	68.66		
		10/09/07	430.02		33.05		396.97	0.00	396.97			
RMW-6F	Main Sand (Deep)	01/09/07	429.67		34.05		395.62	0.00	395.62		429.67	
		04/10/07	429.67		32.16		397.51	0.00	397.51			
		07/10/07	429.67		31.13		398.54	0.00	398.54	88.69		
		10/09/07	429.67		32.67		397.00	0.00	397.00			
RMW-6G	Main Sand (Basal)	01/09/07	430.01		34.40		395.61	0.00	395.61		430.01	
		04/10/07	430.01		32.51		397.50	0.00	397.50			
		07/10/07	430.01		31.47		398.54	0.00	398.54	118.33		
		10/09/07	430.01		33.00		397.01	0.00	397.01			
RMW-7A	N. Olive	01/09/07	429.00		19.04		409.96	0.00	409.96	22.46	406.54	
		04/10/07	429.00		16.95		412.05	0.00	412.05			
		07/10/07	429.00		18.08		410.92	0.00	410.92	22.44		
		10/09/07	429.00		21.25		407.75	0.00	407.75			
RMW-7B	B/C Clay (Permeable Lens)	01/09/07	429.11		21.45		407.66	0.00	407.66	29.20	399.91	
		04/10/07	429.11		17.92		411.19	0.00	411.19			
		07/10/07	429.11		19.32		409.79	0.00	409.79	29.15		
		10/09/07	429.11		23.04		406.07	0.00	406.07			
RMW-7C	Main Sand	01/09/07	429.34			Skimmer Pump in Well					429.34	
		04/10/07	429.34			Skimmer Pump in Well						
		07/10/07	429.34	30.22	33.32	399.12	396.02	3.10	398.44	46.90		
		10/09/07	429.34			Skimmer Pump in Well						
RMW-7D	Main Sand (Intermediate)	01/09/07	428.62		33.08		395.54	0.00	395.54	67.23	361.39	
		04/10/07	428.62		31.32		397.30	0.00	397.30			
		07/10/07	428.62		30.30		398.32	0.00	398.32	67.53		
		10/09/07	428.62		31.74		396.88	0.00	396.88			

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1190500002 -- Madison County -- ILD041889023  
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Well	Stratum/Screener	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbons Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation/Total Well Depth (TOC)	Comments
RMW-7E	(Deep)	01/09/07	428.95		33.42		395.53	0.00	395.53	87.60	341.35	
		04/10/07	428.95		31.66		397.29	0.00	397.29			
		07/10/07	428.95		30.60		398.35	0.00	398.35	87.63		
		10/09/07	428.95		32.06		396.89	0.00	396.89			
RMW-7F	(Basal)	01/09/07	429.20		33.61		395.59	0.00	395.59		429.20	
		04/10/07	429.20		31.86		397.34	0.00	397.34			
		07/10/07	429.20		30.80		398.40	0.00	398.40	117.07		
		10/09/07	429.20		32.27		396.93	0.00	396.93			
RMW-8A	Main Silt	01/09/07	432.52		33.60		398.92	0.00	398.92	33.66	398.86	
		04/11/07	432.52		33.55		398.97	0.00	398.97			
		07/10/07	432.52		33.59		398.93	0.00	398.93	33.65		
		10/09/07	432.52		33.54		398.98	0.00	398.98			
RMW-8B	(Shallow)	01/09/07	432.49		36.73		395.76	0.00	395.76	48.21	384.28	
		04/11/07	432.49		35.20		397.29	0.00	397.29			
		07/10/07	432.49		34.36		398.13	0.00	398.13	48.22		
		10/09/07	432.49		35.51		396.98	0.00	396.98			
RMW-8C	(Intermediate)	01/09/07	432.32		36.52		395.80	0.00	395.80		432.32	
		04/11/07	432.32		34.91		397.41	0.00	397.41			
		07/10/07	432.32		34.19		398.13	0.00	398.13	69.80		
		10/09/07	432.32		35.22		397.10	0.00	397.10			
RMW-8D	(Deep)	01/09/07	432.43		36.62		395.81	0.00	395.81		432.43	
		04/11/07	432.43		35.03		397.40	0.00	397.40			
		07/10/07	432.43		34.31		398.12	0.00	398.12	89.27		
		10/09/07	432.43		35.33		397.10	0.00	397.10			
RMW-8E	(Basal)	01/09/07	432.52		36.70		395.82	0.00	395.82		432.52	
		04/11/07	432.52		35.05		397.47	0.00	397.47			
		07/10/07	432.52		34.34		398.18	0.00	398.18	>100		
		10/09/07	432.52		35.44		397.08	0.00	397.08			
RMW-9A	N. Olive	01/09/07	430.71		11.24		419.47	0.00	419.47	25.50	405.21	TD= January 2006
		04/11/07	430.71		11.55		419.16	0.00	419.16			
		07/10/07	430.71		11.67		419.04	0.00	419.04	25.48		
		10/09/07	430.71		13.45		417.26	0.00	417.26			
RMW-9B	EPA	01/09/07	430.67	34.58	34.83	396.09	395.84	0.25	396.04	46.47	384.20	TD= January 2006
		04/11/07	430.67	32.52	34.72	398.15	395.95	2.20	397.67			
		07/10/07	430.67	31.79	33.50	398.88	397.17	1.71	398.50	46.41		TD= 7/11/07
		10/09/07	430.67	32.99	34.82	397.68	395.85	1.83	397.28			
RMW-10A	N. Olive	01/09/07	430.53	14.03	14.35	416.50	416.18	0.32	416.43	20.61	409.92	
		04/11/07	430.53	13.33	13.41	417.20	417.12	0.08	417.18			
		07/10/07	430.53	13.54	13.74	416.99	416.79	0.20	416.95	20.66		
		10/09/07	430.53	14.52	14.97	416.01	415.56	0.45	415.91			
RMW-10B	(Shallow)	01/09/07	430.42		34.27		396.15	0.00	396.15	45.42	385.00	
		04/11/07	430.42		32.63		397.79	0.00	397.79			
		07/11/07	430.42		31.80		398.62	0.00	398.62	45.70		
		10/09/07	430.42		32.95		397.47	0.00	397.47			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation Total Well Depth (TOC)	Comments
RMW-10C	(Intermediate)	Main Sand	01/09/07	428.09		31.83	396.26	0.00	396.26		428.09	
			04/11/07	428.09		30.21	397.88	0.00	397.88			
			07/11/07	428.09		29.48	398.61	0.00	398.61	65.74		
			10/09/07	428.09		30.53	397.56	0.00	397.56			
RMW-10D	(Deep)	Main Sand	01/09/07	428.00		31.73	396.27	0.00	396.27		428.00	
			04/11/07	428.00		30.10	397.90	0.00	397.90			
			07/11/07	428.00		29.39	398.61	0.00	398.61	80.55		
			10/09/07	428.00		30.45	397.55	0.00	397.55			
RMW-10E	(Basal)	Main Sand	01/09/07	427.87		31.56	396.31	0.00	396.31		427.87	
			04/11/07	427.87		29.94	397.93	0.00	397.93			
			07/11/07	427.87		29.21	398.66	0.00	398.66	108.21		
			10/09/07	427.87		30.27	397.60	0.00	397.60			
RMW-11A	N. Olive		01/09/07	429.70		15.46	414.24	0.00	414.24	20.39	409.31	
			04/11/07	429.70		14.94	414.76	0.00	414.76			
			07/10/07	429.70		15.36	414.34	0.00	414.34	20.44		
			10/09/07	429.70		16.28	413.42	0.19	413.38			
RMW-11B	(Permeable Lens)	B/C Clay	01/09/07	429.88		23.49	406.39	0.00	406.39	27.09	402.79	
			04/11/07	429.88		22.80	407.08	0.00	407.08			
			07/10/07	429.88		23.14	406.74	0.00	406.74	27.11		
			10/09/07	429.88		23.59	406.29	0.00	406.29			
RMW-11C	(Shallow)	Main Sand	01/09/07	430.27		33.52	396.75	1.50	396.42	43.21	387.06	Measured from top of well head
			04/11/07	430.27		32.35	397.92	0.57	397.79			
			07/10/07	430.27		31.46	398.81	0.03	398.80	44.20		
			10/09/07	430.27		32.58	397.69	0.52	397.58			
RMW-12A	N. Olive		01/09/07	432.43		14.70	417.73	0.00	417.73	25.64	406.79	
			04/11/07	432.43		13.62	418.81	0.00	418.81			
			07/10/07	432.43		14.66	417.77	0.00	417.77	25.54		
			10/09/07	432.43		17.52	414.91	0.00	414.91			
RMW-12B	(Permeable Lens)	B/C Clay	01/09/07	432.57		30.35	402.22	0.00	402.22	30.76	401.81	
			04/11/07	432.57		30.18	402.39	0.00	402.39			
			07/10/07	432.57		29.24	403.33	0.00	403.33	30.75		
			10/09/07	432.57		29.55	403.02	0.00	403.02			
RMW-12C	(Shallow)	Main Sand	01/09/07	432.25		35.52	396.73	0.00	396.73	47.10	385.15	
			04/11/07	432.25		34.05	398.20	0.00	398.20			
			07/10/07	432.25		33.14	399.11	0.00	399.11	47.11		
			10/09/07	432.25		34.35	397.90	0.00	397.90			
RMW-13A	N. Olive		01/09/07	429.26		10.16	419.10	0.00	419.10	23.65	405.61	
			04/11/07	429.26		9.58	419.68	0.00	419.68			
			07/11/07	429.26		9.74	419.52	0.00	419.52	23.65		
			10/09/07	429.26		12.53	416.73	0.00	416.73			
RMW-13B	(Permeable Lens)	B/C Clay	01/09/07	429.25		23.35	405.90	0.00	405.90	27.50	401.75	
			04/11/07	429.25		22.62	406.63	0.00	406.63			
			07/11/07	429.25		21.87	407.38	0.00	407.38	27.49		
			10/09/07	429.25		22.70	406.55	0.00	406.55			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevations (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
RMW-13C	(Shallow)	01/09/07	429.06		32.50		396.56	0.00	396.56	48.41	380.65		
		04/11/07	429.06		30.92		398.14	0.00	398.14				
		07/10/07	429.06		30.05		399.01	0.00	399.01	48.47			
		10/09/07	429.06		31.29		397.77	0.00	397.77				
RMW-14A	N. Olive	01/09/07	433.12		22.15		410.97	0.00	410.97	22.64	410.48		
		04/11/07	433.12		21.26		411.86	0.00	411.86				
		07/10/07	433.12		21.91		411.21	0.00	411.21	22.65			
		10/09/07	433.12		22.20		410.92	0.00	410.92				
RMW-14B	(Permeable Lens)	01/09/07	433.14		22.28		410.86	0.00	410.86	33.16	399.98		
		04/11/07	433.14		21.22		411.92	0.00	411.92				
		07/10/07	433.14		21.92		411.22	0.00	411.22	33.12			
		10/09/07	433.14		24.41		408.73	0.00	408.73				
RMW-14C	(below D Clay)	01/09/07	433.10		36.92		396.18	0.00	396.18	56.76	376.34		
		04/11/07	433.10		34.97		398.13	0.00	398.13				
		07/10/07	433.10		33.93		399.17	0.00	399.17	56.90			
		10/09/07	433.10		35.55		397.55	0.00	397.55				
RMW-15A	N. Olive	01/09/07	432.96	18.82	18.84	414.14	414.12	0.02	414.14	25.01	407.95		
		04/10/07	432.96		17.75		415.21	0.00	415.21				
		07/10/07	432.96		17.36		415.60	0.00	415.60	24.99			
		10/09/07	432.96	18.05	19.43	414.91	413.53	1.38	414.61				
RMW-15B	B/C Clay	01/09/07	432.96		19.00		413.96	0.00	413.96	31.11	401.85		
		04/10/07	432.96		17.97		414.99	0.00	414.99				
		07/10/07	432.96		17.52		415.44	0.00	415.44	31.11			
		10/09/07	432.96		19.45		413.51	0.00	413.51				
RMW-15C	EPA / Main	01/09/07	432.95								432.95		
		04/10/07	432.95										
		07/10/07	432.95	31.18	41.85	401.77	391.10	10.67	399.42	47.93			
		10/09/07	432.95										
RMW-15D	(Intermediate)	01/09/07	432.77		37.32		395.45	0.00	395.45	73.43	359.34	TD= January 2006	
		04/10/07	432.77		35.25		397.52	0.00	397.52				
		07/10/07	432.77		33.84		398.93	0.00	398.93	73.46			
		10/09/07	432.77		35.83		396.94	0.00	396.94				
RMW-15E	(Deep)	01/09/07	432.80		37.34		395.46	0.00	395.46	94.50	338.30	TD= January 2006	
		04/10/07	432.80		35.25		397.55	0.00	397.55				
		07/10/07	432.80		33.85		398.95	0.00	398.95	93.38			
		10/09/07	432.80		35.83		396.97	0.00	396.97				
RMW-15F	(Basal)	01/09/07	432.36		36.92		395.44	0.00	395.44	123.04	309.32		
		04/10/07	432.36		34.82		397.54	0.00	397.54				
		07/10/07	432.36		33.39		398.97	0.00	398.97	123.05			
		10/09/07	432.36		35.44		396.92	0.00	396.92				
RMW-16A	Main Silt	01/10/07	430.07		29.14		400.93	0.00	400.93	29.18	400.89		
		04/11/07	430.07							29.10			
		07/10/07	430.07		28.68		401.39	0.00	401.39	29.19			
		10/09/07	430.07										

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
**Wells Located in Premcor Facility**

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Top Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC) (ft)	Comments
RMW-16B	(Shallow)	01/10/07	430.12		33.11		397.01	0.00	397.01	37.52	392.60	TD= January 2006
		04/11/07	430.12		30.55		399.57	0.00	399.57			
		07/10/07	430.12		29.37		400.75	0.00	400.75	43.85		
		10/09/07	430.12		31.48		398.64	0.00	398.64			
RMW-16C	(Intermediate)	01/10/07	430.15		33.31		396.84	0.00	396.84		430.15	
		04/11/07	430.15		30.54		399.61	0.00	399.61			
		07/10/07	430.15		29.57		400.58	0.00	400.58	66.60		
		10/09/07	430.15		31.70		398.45	0.00	398.45			
RMW-16D	(Deep)	01/10/07	430.13		33.29		396.84	0.00	396.84		430.13	
		04/11/07	430.13		30.52		399.61	0.00	399.61			
		07/10/07	430.13		29.60		400.53	0.00	400.53	91.92		
		10/09/07	430.13		31.68		398.45	0.00	398.45			
RMW-16E	(Basal)	01/10/07	430.12		33.25		396.87	0.00	396.87		430.12	
		04/11/07	430.12		30.50		399.62	0.00	399.62			
		07/10/07	430.12		29.60		400.52	0.00	400.52	>100		
		10/09/07	430.12		31.67		398.45	0.00	398.45			
RMW-17A	Main Silt	01/10/07	431.80	DRY			0.00		33.24		398.56	TD= January 2007
		04/11/07	431.80		32.29		399.51	0.00	399.51			
		07/10/07	431.80		30.57		401.23	0.00	401.23	33.27		
		10/09/07	431.80		32.61		399.19	0.00	399.19			
RMW-17B	(Shallow)	01/10/07	431.79		34.43		397.36	0.00	397.36	42.10	389.69	TD= January 2006
		04/11/07	431.79		32.25		399.54	0.00	399.54			
		07/10/07	431.79		30.52		401.27	0.00	401.27	48.02		
		10/09/07	431.79		32.58		399.21	0.00	399.21			
RMW-17C	(Intermediate)	01/10/07	431.51		34.19		397.32	0.00	397.32	68.36	363.15	TD= January 2006
		04/11/07	431.51		31.34		400.17	0.00	400.17			
		07/10/07	431.51		30.42		401.09	0.00	401.09	69.43		
		10/09/07	431.51		32.60		398.91	0.00	398.91			
RMW-17D	(Deep)	01/10/07	431.56		34.18		397.38	0.00	397.38	93.59	337.97	TD= January 2006
		04/11/07	431.56		31.34		400.22	0.00	400.22			
		07/10/07	431.56		30.40		401.16	0.00	401.16	93.45		TD= 7/11/07
		10/09/07	431.56		32.59		398.97	0.00	398.97			
RMW-17E	(Basal)	01/10/07	431.61		34.15		397.46	0.00	397.46	> 100		TD= January 2006
		04/11/07	431.61		31.26		400.35	0.00	400.35			
		07/10/07	431.61		30.29		401.32	0.00	401.32	>100		
		10/09/07	431.61		32.53		399.08	0.00	399.08			
RMW-18A	Main Silt	01/10/07	429.54		25.12		404.42	0.00	404.42	25.20	404.34	
		04/11/07	429.54		25.15		404.39	0.00	404.39			
		07/10/07	429.54		25.12		404.42	0.00	404.42	25.22		
		10/09/07	429.54		25.15		404.39	0.00	404.39			
RMW-18B	(Shallow)	01/10/07	429.42		32.84		396.58	0.00	396.58	40.60	388.82	
		04/11/07	429.42		30.68		398.74	0.00	398.74			
		07/10/07	429.42		29.07		400.35	0.00	400.35	40.66		TD= 7/11/07
		10/09/07	429.42		31.24		398.18	0.00	398.18			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation <sup>1</sup> (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation <sup>3</sup> (Total Well Depth (TOC)) (ft)	Comments
RMW-19A	Main Silt	01/10/07	431.33		32.63		398.70	0.00	398.70	32.83	398.50	
		04/11/07	431.33		31.73		399.60	0.00	399.60			
		07/10/07	431.33		30.10		401.23	0.00	401.23	32.94		
		10/10/07	431.33		32.00		399.33	0.00	399.33			
RMW-19B	Main Sand (Shallow)	01/10/07	431.71		33.71		398.00	0.00	398.00	47.02	384.69	
		04/11/07	431.71		31.80		399.91	0.00	399.91			
		07/10/07	431.71		30.31		401.40	0.00	401.40	46.96		
		10/09/07	431.71		32.41		399.30	0.00	399.30			
RMW-20A	Main Silt	01/10/07	431.56			Skimmer Pump in Well					431.56	
		04/11/07	431.56			Skimmer Pump in Well						
		07/10/07	431.56	29.57	32.03	401.99	399.53	2.46	401.45	32.96		
		10/09/07	431.56			Skimmer Pump in Well						
RMW-20B	Main Sand (Shallow)	01/10/07	431.56			Skimmer Pump in Well				46.65	384.91	
		04/11/07	431.56			Skimmer Pump in Well						
		07/10/07	431.56	30.06	30.16	401.50	401.40	0.10	401.48	46.65		
		10/09/07	431.56			Skimmer Pump in Well						
RMW-21A	Main Silt	01/10/07	432.16		29.85		402.31	0.00	402.31	30.11	402.05	
		04/11/07	432.16		29.87		402.29	0.00	402.29			
		07/10/07	432.16	29.81	29.97	402.35	402.19	0.16	402.31	30.13		
		10/09/07	432.16		29.85		402.31	0.00	402.31			
RMW-21B	Main Sand (Shallow)	01/10/07	432.09	32.89	36.10	399.20	395.99	3.21	398.49	42.94	389.15	
		04/11/07	432.09	31.25	32.97	400.84	399.12	1.72	400.46			
		07/10/07	432.09	29.77	31.91	402.32	400.18	2.14	401.85	42.98		
		10/09/07	432.09			Skimmer Pump in Well						
RMW-21C	Main Sand (Intermediate)	01/10/07	429.05		30.65		398.40	0.00	398.40		429.05	
		04/11/07	429.05		28.61		400.44	0.00	400.44			
		07/10/07	429.05		27.29		401.76	0.00	401.76	65.55		
		10/09/07	429.05		29.18		399.87	0.00	399.87			
RMW-21D	Main Sand (Deep)	01/10/07	428.73		30.33		398.40	0.00	398.40		428.73	
		04/11/07	428.73		28.31		400.42	0.00	400.42			
		07/10/07	428.73		26.91		401.82	0.00	401.82	91.51		
		10/09/07	428.73		28.86		399.87	0.00	399.87			
RMW-21E	Main Sand (Basal)	01/10/07	428.30		29.89		398.41	0.00	398.41		428.30	
		04/11/07	428.30		27.84		400.46	0.00	400.46			
		07/10/07	428.30		26.50		401.80	0.00	401.80	> 100		
		10/09/07	428.30		28.42		399.88	0.00	399.88			
RMW-22A	Main Silt	01/10/07	430.84					0.00		29.00	401.84	TD= January 2007
		04/11/07	430.84					0.00		28.87		
		07/10/07	430.84					0.00		28.55		
		10/09/07	430.84					0.00				
RMW-22B	Main Sand (Shallow)	01/10/07	430.76		32.25		398.51	0.00	398.51	43.10	387.66	
		04/11/07	430.76		29.95		400.81	0.00	400.81			
		07/10/07	430.76		28.66		402.10	0.00	402.10	43.02		
		10/09/07	430.76		30.76		400.00	0.00	400.00			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (T.O.C.) (ft)	Total Depth Elevation - Total Well Depth (T.O.C.) (ft)	Comments
RMW-23A	(Shallow)	01/10/07	430.45	31.03	33.45	399.42	397.00	2.42	398.89	45.28	385.17	
		04/11/07	430.45	29.22	29.73	401.23	400.72	0.51	401.12			
		07/10/07	430.45	28.05	28.53	402.40	401.92	0.48	402.29	45.38		
		10/09/07	430.45	29.63	31.33	400.82	399.12	1.70	400.45			
RMW-24A	N. Olive	01/09/07	433.30	[REDACTED]	22.44	[REDACTED]	410.86	0.00	410.86	22.48	410.82	
		04/10/07	433.30	[REDACTED]	22.47	[REDACTED]	410.83	0.00	410.83			
		07/10/07	433.30	[REDACTED]	22.47	[REDACTED]	410.83	0.00	410.83	22.51		
		10/09/07	433.30	[REDACTED]	22.47	[REDACTED]	410.83	0.00	410.83	22.52		
RMW-24B	(Permeable Lens)	01/09/07	433.28	[REDACTED]	29.06	[REDACTED]	404.22	0.00	404.22	29.55	403.73	
		04/10/07	433.28	[REDACTED]	29.03	[REDACTED]	404.25	0.00	404.25			
		07/10/07	433.28	[REDACTED]	28.95	[REDACTED]	404.33	0.00	404.33	29.57		
		10/09/07	433.28	[REDACTED]	28.88	[REDACTED]	404.40	0.00	404.40			
RMW-24C	EPA / Main	01/09/07	433.28	37.67	37.93	395.61	395.35	0.26	395.55	47.88	385.40	
		04/10/07	433.28	[REDACTED]	35.39	[REDACTED]	397.89	0.00	397.89			
		07/10/07	433.28	33.58	36.70	399.70	396.58	3.12	399.01	47.85		
		10/09/07	433.28	35.51	38.20	397.77	395.08	2.69	397.18			
RMW-24D	(below D Clay)	01/09/07	433.43	[REDACTED]	37.82	[REDACTED]	395.61	0.00	395.61	55.14	378.29	
		04/10/07	433.43	[REDACTED]	35.27	[REDACTED]	398.16	0.00	398.16			
		07/10/07	433.43	[REDACTED]	34.44	[REDACTED]	398.99	0.00	398.99	55.20		
		10/09/07	433.43	[REDACTED]	36.23	[REDACTED]	397.20	0.00	397.20			
RMW-25A	EPA	01/09/07	433.51	[REDACTED]	37.65	[REDACTED]	395.86	0.00	395.86	43.82	389.69	
		04/10/07	433.51	[REDACTED]	36.09	[REDACTED]	397.42	0.00	397.42			
		07/10/07	433.51	[REDACTED]	33.89	[REDACTED]	399.62	0.00	399.62	43.90		
		10/09/07	433.51	[REDACTED]	35.71	[REDACTED]	397.80	0.00	397.80			
RMW-25B	(below D Clay)	01/09/07	433.58	37.94	38.37	395.64	395.21	0.43	395.55	56.85	376.73	
		04/10/07	433.58	35.38	36.22	398.20	397.36	0.84	398.02			
		07/10/07	433.58	34.58	35.37	399.00	398.21	0.79	398.83	56.89		
		10/09/07	433.58	36.31	37.09	397.27	396.49	0.78	397.10			
RMW-26A	N. Olive	01/09/07	432.69	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]	21.94	410.75	TD= January 2007
		04/10/07	432.69	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]	21.95		
		07/10/07	432.69	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]	21.92		
		10/09/07	432.69	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]	21.92		
RMW-26B	(Permeable Lens)	01/09/07	433.01	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	0.00	[REDACTED]	27.00	406.01	TD= January 2007
		04/10/07	433.01	[REDACTED]	24.34	[REDACTED]	408.67	0.00	408.67			
		07/10/07	433.01	[REDACTED]	23.56	[REDACTED]	409.45	0.00	409.45	27.00		
		10/09/07	433.01	[REDACTED]	26.77	[REDACTED]	406.24	0.00	406.24			
RMW-26C	EPA	01/09/07	432.79	[REDACTED]	36.72	[REDACTED]	396.07	0.00	396.07	40.93	391.86	
		04/10/07	432.79	[REDACTED]	34.32	[REDACTED]	398.47	0.00	398.47			
		07/10/07	432.79	[REDACTED]	32.84	[REDACTED]	399.95	0.00	399.95	40.94		
		10/09/07	432.79	[REDACTED]	34.75	[REDACTED]	398.04	0.00	398.04			
RMW-26D	(below D Clay)	01/09/07	432.43	[REDACTED]	36.88	[REDACTED]	395.55	0.00	395.55	56.34	376.09	
		04/10/07	432.43	[REDACTED]	34.41	[REDACTED]	398.02	0.00	398.02			
		07/10/07	432.43	[REDACTED]	33.62	[REDACTED]	398.81	0.00	398.81	56.38		
		10/09/07	432.43	[REDACTED]	35.30	[REDACTED]	397.13	0.00	397.13			

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Well #	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Comments
RMW-27A	Main Silt	01/09/07	429.81		25.17		404.64	0.00	404.64	25.47	404.34	
		04/10/07	429.81		25.17		404.64	0.00	404.64			
		07/10/07	429.81		24.94		404.87	0.00	404.87	25.48		
		10/09/07	429.81		25.01		404.80	0.00	404.80			
RMW-27B	Main Sand (Shallow)	01/09/07	429.81		32.57		397.24	0.00	397.24	38.21	391.60	
		04/10/07	429.81		31.64		398.17	0.00	398.17			
		07/10/07	429.81		31.23		398.58	0.00	398.58	38.45		
		10/09/07	429.81		31.06		398.75	0.00	398.75			
RMW-28A	N. Olive	01/09/07	432.42		27.28		405.14	0.00	405.14	27.56	404.86	
		04/10/07	432.42		27.30		405.12	0.00	405.12			
		07/10/07	432.42		27.28		405.14	0.00	405.14	27.57		
		10/09/07	432.42		27.31		405.11	0.00	405.11			
RMW-28B	EPA	01/09/07	432.42			Skimmer Pump in Well						432.42
		04/10/07	432.42			Skimmer Pump in Well						
		07/10/07	432.42	32.90	37.75	399.52	394.67	4.85	398.45	43.05		
		10/09/07	432.42			Skimmer Pump in Well						
RMW-28C	Main Sand (below D Clay)	01/09/07	432.54		37.27		395.27	0.00	395.27	54.92	377.62	
		04/10/07	432.54		35.02		397.52	0.00	397.52			
		07/10/07	432.54		34.78		397.76	0.00	397.76	54.94		
		10/09/07	432.54		35.70		396.84	0.00	396.84			
RMW-29A	Main Silt	01/09/07	432.65		37.02		395.63	0.00	395.63	43.47	389.18	
		04/10/07	432.65		35.34		397.31	0.00	397.31			
		07/10/07	432.65		33.76		398.89	0.00	398.89	44.01		
		10/09/07	432.65		33.98		398.67	0.00	398.67			
RMW-30A	Main Silt	01/09/07	428.96		25.34		403.62	0.00	403.62	25.80	403.16	
		04/10/07	428.96		25.35		403.61	0.00	403.61			
		07/10/07	428.96		25.34		403.62	0.00	403.62	25.81		
		10/09/07	428.96		25.72		403.24	0.00	403.24			
RMW-30B	Main Sand (Shallow)	01/09/07	428.89		33.77		395.12	0.00	395.12	39.49	389.40	
		04/10/07	428.89		31.55		397.34	0.00	397.34			
		07/10/07	428.89		30.00		398.89	0.00	398.89	39.48		
		10/09/07	428.89		32.10		396.79	0.00	396.79			
RMW-31A	Main Silt	01/09/07	433.26							28.59	404.67	
		04/10/07	433.26									
		07/10/07	433.26							28.58		
		10/09/07	433.26		28.60		404.66	0.00	404.66			
RMW-31B	Main Sand (Shallow)	01/09/07	433.35	38.20	42.55	395.15	390.80	4.35	394.19	43.31	390.04	TD= January 2006
		04/10/07	433.35	36.60	36.73	396.75	396.62	0.13	396.72			
		07/11/07	433.35	34.04	37.10	399.31	396.25	3.06	398.64	43.26		
		10/09/07	433.35	36.40	41.52	396.95	391.83	5.12	395.82			
RMW-31C	(Intermediate)	01/09/07	433.05		38.66		394.39	0.00	394.39	73.07	359.98	
		04/10/07	433.05		36.30		396.75	0.00	396.75			
		07/10/07	433.05		34.04		399.01	0.00	399.01	73.15		
		10/09/07	433.05		36.90		396.15	0.00	396.15			

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located in Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>*</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
RMW-31D	(Deep)	01/09/07	432.96		38.11		394.85	0.00	394.85	94.41	338.55	TD= January 2006
		04/10/07	432.96		36.17		396.79	0.00	396.79			
		07/10/07	432.96		33.95		399.01	0.00	399.01	94.32		
		10/09/07	432.96		36.88		396.08	0.00	396.08			
RMW-31E	(Basal)	01/09/07	432.86		38.32		394.54	0.00	394.54	124.11	308.75	
		04/10/07	432.86		36.61		396.25	0.00	396.25			
		07/10/07	432.86		33.60		399.26	0.00	399.26	124.20		
		10/09/07	432.86		37.50		395.36	0.00	395.36			
RMW-32A	Main Silt	01/09/07	429.52		21.68		407.84	0.00	407.84	21.96	407.56	
		04/10/07	429.52		21.68		407.84	0.00	407.84			
		07/11/07	429.52		21.66		407.86	0.00	407.86	21.97		
		10/09/07	429.52		21.72		407.80	0.00	407.80			
RMW-32B	(Shallow)	01/09/07	429.37	34.12	37.02	395.25	392.35	2.90	394.61	37.25	392.12	
		04/10/07	429.37	32.43	35.10	396.94	394.27	2.67	396.35			
		07/10/07	429.37	29.69	33.72	399.68	395.65	4.03	398.79	37.46		
		10/09/07	429.37	32.61	36.94	396.76	392.43	4.33	395.81			
RMW-33A	N. Olive	01/09/07	434.59		22.93		411.66	0.00	411.66	23.15	411.44	
		04/10/07	434.59		21.88		412.71	0.00	412.71			
		07/10/07	434.59		22.92		411.67	0.00	411.67	23.17		
		10/09/07	434.59		22.93		411.66	0.00	411.66			
RMW-33B	(Permeable Lens)	01/09/07	434.51		24.33		410.18	0.00	410.18	30.50	404.01	
		04/10/07	434.51		23.25		411.26	0.00	411.26			
		07/10/07	434.51		23.51		411.00	0.00	411.00	30.51		
		10/09/07	434.51		27.68		406.83	0.00	406.83			
RMW-33C	EPA	01/09/07	434.59		39.01		395.58	0.00	395.58	43.58	391.01	
		04/10/07	434.59		37.10		397.49	0.00	397.49			
		07/10/07	434.59		35.29		399.30	0.00	399.30	43.58		
		10/09/07	434.59		37.10		397.49	0.00	397.49			
RMW-33D	(below D Clay)	01/09/07	434.64		39.21		395.43	0.00	395.43	57.19	377.45	
		04/10/07	434.64		36.55		398.09	0.00	398.09			
		07/10/07	434.64		35.95		398.69	0.00	398.69	57.27	377.37	
		10/09/07	434.64		37.70		396.94	0.00	396.94		434.64	
RMW-34A	N. Olive	01/09/07	432.24		18.22		414.02	0.00	414.02	21.06	411.18	
		04/10/07	432.24		15.56		416.68	0.00	416.68			
		07/10/07	432.24		16.71		415.53	0.00	415.53	21.05		
		10/09/07	432.24		20.43		411.81	0.00	411.81			
RMW-34B	EPA	01/09/07	431.81		35.59		396.22	0.00	396.22	42.55	389.26	
		04/10/07	431.81		33.84		397.97	0.00	397.97			
		07/10/07	431.81		31.58		400.23	0.00	400.23	42.20		
		10/09/07	431.81		33.63		398.18	0.00	398.18			
RMW-34C	(below D Clay)	01/09/07	431.95		36.36		395.59	0.00	395.59	57.31	374.64	
		04/10/07	431.95		33.93		398.02	0.00	398.02			
		07/10/07	431.95		33.06		398.89	0.00	398.89	57.05		
		10/09/07	431.95		34.80		397.15	0.00	397.15			

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located in Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>a</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC) (ft)	Comments
RMW-34D	(Intermediate)	01/09/07	432.24		36.66		395.58	0.00	395.58		432.24	
		04/10/07	432.24		34.20		398.04	0.00	398.04			
		07/10/07	432.24		33.33		398.91	0.00	398.91	74.03		
		10/09/07	432.24		35.08		397.16	0.00	397.16			
RMW-34E	(Deep)	01/09/07	432.13		36.53		395.60	0.00	395.60		432.13	
		04/10/07	432.13		34.09		398.04	0.00	398.04			
		07/10/07	432.13		33.21		398.92	0.00	398.92	93.54		
		10/09/07	432.13		34.94		397.19	0.00	397.19			
RMW-34F	(Basal)	01/09/07	432.26		36.65		395.61	0.00	395.61		432.26	
		04/10/07	432.26		34.19		398.07	0.00	398.07			
		07/10/07	432.26		33.43		398.83	0.00	398.83	116.88		
		10/09/07	432.26		35.07		397.19	0.00	397.19			
RMW-35A	N. Olive	01/09/07	431.99		17.65		414.34	0.00	414.34	21.59	410.40	
		04/10/07	431.99		14.82		417.17	0.00	417.17			
		07/10/07	431.99		16.19		415.80	0.00	415.80	21.61		
		10/09/07	431.99		21.40		410.59	0.00	410.59			
RMW-35B	EPA	01/09/07	432.32		34.01		398.31	0.00	398.31	44.69	387.63	TD= January 2006
		04/10/07	432.32		31.02		401.30	0.00	401.30			
		07/10/07	432.32		30.35		401.97	0.00	401.97	44.71		
		10/09/07	432.32		32.95		399.37	0.00	399.37			
RMW-35C	(below D Clay)	01/09/07	432.06		36.53		395.53	0.00	395.53	57.11	374.95	
		04/10/07	432.06		34.21		397.85	0.00	397.85			
		07/10/07	432.06		33.40		398.66	0.00	398.66	57.13		
		10/09/07	432.06		35.03		397.03	0.00	397.03			
RMW-35D	(Intermediate)	01/09/07	431.70		36.11		395.59	0.00	395.59	77.57	354.13	
		04/10/07	431.70		33.74		397.96	0.00	397.96			
		07/10/07	431.70		33.02		398.68	0.00	398.68	77.50		
		10/09/07	431.70		34.59		397.11	0.00	397.11			
RMW-35E	(Deep)	01/09/07	431.82		36.23		395.59	0.00	395.59		431.82	
		04/10/07	431.82		33.86		397.96	0.00	397.96			
		07/10/07	431.82		33.01		398.81	0.00	398.81	97.80		
		10/09/07	431.82		34.69		397.13	0.00	397.13			
RMW-35F	(Basal)	01/09/07	432.35		36.72		395.63	0.00	395.63		432.35	
		04/10/07	432.35		34.35		398.00	0.00	398.00			
		07/10/07	432.35		33.60		398.75	0.00	398.75	120.09		
		10/09/07	432.35		35.19		397.16	0.00	397.16			
RMW-36A	N. Olive	01/09/07	431.57		20.29		411.28	0.00	411.28	20.42	411.15	
		04/10/07	431.57		20.26		411.31	0.00	411.31			
		07/10/07	431.57		20.32		411.25	0.00	411.25	20.48		
		10/09/07	431.57		20.31		411.26	0.00	411.26			
RMW-36B	EPA	01/09/07	431.37		34.14		397.23	0.00	397.23	44.29	387.08	TD= January 2006
		04/10/07	431.37		31.96		399.41	0.00	399.41			
		07/10/07	431.37		31.00		400.37	0.00	400.37	44.17		
		10/09/07	431.37		32.98		398.39	0.00	398.39			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMW-36C	Main Sand (below D Clay)	01/09/07	431.67		36.12		395.55	0.00	395.55	57.65	374.02	
		04/10/07	431.67		33.97		397.70	0.00	397.70			
		07/10/07	431.67		33.16		398.51	0.00	398.51	57.47		
		10/09/07	431.67		34.66		397.01	0.00	397.01			
RMW-36D	Main Sand (Intermediate)	01/09/07	431.12		35.54		395.58	0.00	395.58	73.26	357.86	
		04/10/07	431.12		33.43		397.69	0.00	397.69			
		07/10/07	431.12		32.61		398.51	0.00	398.51	73.10		
		10/09/07	431.12		34.11		397.01	0.00	397.01			
RMW-36E	Main Sand (Deep)	01/09/07	431.02		35.41		395.61	0.00	395.61	93.17	337.85	
		04/10/07	431.02		33.49		397.53	0.00	397.53			
		07/10/07	431.02		32.47		398.55	0.00	398.55	93.26		
		10/09/07	431.02		33.96		397.06	0.00	397.06			
RMW-36F	Main Sand (Basal)	01/09/07	431.19		35.58		395.61	0.00	395.61		431.19	
		04/10/07	431.19		33.45		397.74	0.00	397.74			
		07/10/07	431.19		32.64		398.55	0.00	398.55	112.55		
		10/09/07	431.19		34.15		397.04	0.00	397.04			
RMW-37A	Main Silt	01/09/07	431.40		19.23		412.17	0.00	412.17	30.35	401.05	
		04/10/07	431.40		24.35		407.05	0.00	407.05			
		07/10/07	431.40		24.84		406.56	0.00	406.56	28.26		
		10/09/07	431.40		27.91		403.49	0.00	403.49			
RMW-37B	Main Sand (Shallow)	01/09/07	431.50		35.79		395.71	0.00	395.71	45.05	386.45	TD= January 2006
		04/10/07	431.50		36.17		395.33	0.00	395.33			
		07/10/07	431.50		31.82		399.68	0.00	399.68	42.02		
		10/09/07	431.50		33.85		397.65	0.00	397.65			
RMW-38A	Main Sand (below D Clay)	01/09/07	433.00							77.20	355.80	TD= January 2006
		04/10/07	433.00									
		07/10/07	433.00	31.87	46.30	401.13	386.70	14.43	397.96	74.56		
		10/09/07	433.00									
RMW-39A	Main Silt	01/09/07	431.06		17.99		413.07	0.00	413.07	18.25	412.81	
		04/11/07	431.06		18.01		413.05	0.00	413.05			
		07/10/07	431.06		17.99		413.07	0.00	413.07	18.29		
		10/09/07	431.06		18.01		413.05	0.00	413.05			
RMW-39B	Main Silt	01/09/07	431.29		28.61		402.68	0.00	402.68	29.07	402.22	
		04/11/07	431.29									
		07/10/07	431.29		28.68		402.61	0.00	402.61	29.25		
		10/09/07	431.29									
RMW-39C	Main Sand (Shallow)	01/09/07	431.27		34.98		396.29	0.00	396.29	42.91	388.36	
		04/11/07	431.27		33.78		397.49	0.00	397.49			
		07/10/07	431.27		32.82		398.45	0.00	398.45	43.01		
		10/09/07	431.27		33.93		397.34	0.00	397.34			
RMW-40	EPA	01/09/07	432.41		36.45		395.96	0.00	395.96	41.18	391.23	
		04/10/07	432.41		34.96		397.45	0.00	397.45			
		07/10/07	432.41		32.67		399.74	0.00	399.74	41.23		
		10/09/07	432.41		34.51		397.90	0.00	397.90			

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water Surface (ft)	(A)+(B) Hydrocarbon Surface Elevation (ft)	(A)+(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation c. Total Well Depth (TOC) (ft)	Comments
RMW-41A	(Intermediate)	01/09/07	434.03		38.93		395.10	0.00	395.10	67.27	366.76	
		04/10/07	434.03		35.75		398.28	0.00	398.28			
		07/10/07	434.03		35.51		398.52	0.00	398.52	67.30		
		10/09/07	434.03		37.31		396.72	0.00	396.72			
RMW-41B	(Deep)	01/09/07	433.97		38.78		395.19	0.00	395.19	85.28	348.69	
		04/10/07	433.97		35.69		398.28	0.00	398.28			
		07/10/07	433.97		35.34		398.63	0.00	398.63	88.49		
		10/09/07	433.97		37.08		396.89	0.00	396.89			
RMW-41C	(Basal)	01/09/07	434.05		38.76		395.29	0.00	395.29	111.80	322.25	
		04/10/07	434.05		35.74		398.31	0.00	398.31			
		07/10/07	434.05		35.34		398.71	0.00	398.71	116.54		
		10/09/07	434.05		37.12		396.93	0.00	396.93			
RMW-42A	N. Olive	01/09/07	431.76					0.00		21.90	409.86	
		04/10/07	431.76					0.00				
		07/10/07	431.76		21.82		409.94	0.00	409.94	21.90		TD= 7/11/07
		10/09/07	431.76		21.83		409.93	0.00	409.93			
RMW-42B	EPA	01/09/07	432.01		36.13		395.88	0.00	395.88	42.96	389.05	
		04/10/07	432.01	31.42	31.75	400.59	400.26	0.33	400.52			
		07/10/07	432.01	32.23	35.71	399.78	396.30	3.48	399.01	42.92		
		10/09/07	432.01	34.20	36.03	397.81	395.98	1.83	397.41			
RMW-42C	(below D Clay)	01/09/07	431.98		36.32		395.66	0.00	395.66	56.18	375.80	
		04/10/07	431.98		34.10		397.88	0.00	397.88			
		07/10/07	431.98		33.23		398.75	0.00	398.75	56.07		
		10/09/07	431.98		34.76		397.22	0.00	397.22			
RMW-43A	(Intermediate)	01/10/07	433.74		35.13		398.61	0.00	398.61		433.74	
		04/11/07	433.74		32.03		401.71	0.00	401.71			
		07/10/07	433.74		31.25		402.49	0.00	402.49	69.25		
		10/09/07	433.74		33.55		400.19	0.00	400.19			
RMW-43B	(Deep)	01/10/07	433.25		34.62		398.63	0.00	398.63		433.25	
		04/11/07	433.25		31.52		401.73	0.00	401.73			
		07/10/07	433.25		30.75		402.50	0.00	402.50	94.24		
		10/09/07	433.25		33.04		400.21	0.00	400.21			
RMW-43C	(Basal)	01/10/07	432.67		34.05		398.62	0.00	398.62		432.67	
		04/11/07	432.67		30.95		401.72	0.00	401.72			
		07/10/07	432.67		30.17		402.50	0.00	402.50	> 100		
		10/09/07	432.67		32.47		400.20	0.00	400.20			
RMW-44A	(Intermediate)	01/09/07	431.24		35.55		395.69	0.00	395.69		431.24	
		04/11/07	431.24		34.18		397.06	0.00	397.06			
		07/10/07	431.24		33.41		397.83	0.00	397.83	65.29		
		10/09/07	431.24		34.37		396.87	0.00	396.87			
RMW-44B	(Deep)	01/09/07	431.16		35.49		395.67	0.00	395.67		431.16	
		04/11/07	431.16		34.10		397.06	0.00	397.06			
		07/10/07	431.16		33.33		397.83	0.00	397.83	84.91		
		10/09/07	431.16		34.31		396.85	0.00	396.85			

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\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casting Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMW-44C	(Basal)	01/09/07	430.95		35.23		395.72	0.00	395.72		430.95	
		04/11/07	430.95		33.82		397.13	0.00	397.13			
		07/10/07	430.95		33.05		397.90	0.00	397.90	>100		
		10/09/07	430.95		34.02		396.93	0.00	396.93			
RMW-45A	N. Olive	01/09/07	430.84		16.88		413.96	0.00	413.96	16.98	413.86	
		04/10/07	430.84		16.90		413.94	0.00	413.94			
		07/11/07	430.84		16.90		413.94	0.00	413.94	17.01		
		10/09/07	430.84		16.90		413.94	0.00	413.94			
RMW-45B	(Shallow)	01/09/07	430.80			Skimmer Pump in Well				44.97	385.83	
		04/10/07	430.80			Skimmer Pump in Well						
		07/10/07	430.80	31.28	32.45	399.52	398.35	1.17	399.26	44.90		TD = 7/11/07
		10/09/07	430.80			Skimmer Pump In Well						
RMW-45C	(Shallow)	01/09/07	430.75		35.02		395.73	0.00	395.73	52.03	378.72	
		04/10/07	430.75		32.42		398.33	0.00	398.33			
		07/10/07	430.75		31.56		399.19	0.00	399.19	52.05		
		10/09/07	430.75		33.41		397.34	0.00	397.34			
RMW-46A	N. Olive	01/09/07	428.79							15.07	413.72	
		04/10/07	428.79		14.76		414.03	0.00	414.03			
		07/10/07	428.79		14.73		414.06	0.00	414.06	15.09		
		10/09/07	428.79									
RMW-46B	EPA	01/09/07	429.07		33.06		396.01	0.00	396.01	38.92	390.15	
		04/10/07	429.07		31.78		397.29	0.00	397.29			
		07/10/07	429.07		29.36		399.71	0.00	399.71	38.89		
		10/09/07	429.07		31.15		397.92	0.00	397.92			
RMW-46C	(below D Clay)	01/09/07	428.98		33.36		395.62	0.00	395.62	51.64	377.34	
		04/10/07	428.98		31.15		397.83	0.00	397.83			
		07/10/07	428.98		30.18		398.80	0.00	398.80	51.66		
		10/09/07	428.98		31.77		397.21	0.00	397.21			
RMW-47A	N. Olive	01/09/07	433.82		22.12		411.70	0.00	411.70	22.37	411.45	
		04/10/07	433.82		22.14		411.68	0.00	411.68			
		07/10/07	433.82		22.19		411.63	0.00	411.63	22.42		
		10/09/07	433.82		22.16		411.66	0.00	411.66			
RMW-47B	EPA	01/09/07	433.50	37.98	38.42	395.52	395.08	0.44	395.42	43.79	389.71	
		04/10/07	433.50		35.43		398.07	0.00	398.07			
		07/10/07	433.50	34.17	35.62	399.33	397.88	1.45	399.01	44.10		
		10/09/07	433.50	35.96	37.65	397.54	395.85	1.69	397.17			
RMW-47C	(below D Clay)	01/09/07	433.48		38.01		395.47	0.00	395.47	55.25	378.23	
		04/10/07	433.48		34.93		398.55	0.00	398.55			
		07/10/07	433.48		34.62		398.86	0.00	398.86	55.28		
		10/09/07	433.48		36.47		397.01	0.00	397.01			
RMW-48A	N. Olive	01/09/07	433.82		17.56		416.26	0.00	416.26	17.82	416.00	
		04/10/07	433.82		17.58		416.24	0.00	416.24			
		07/10/07	433.82		17.59		416.23	0.00	416.23	17.84		
		10/09/07	433.82		17.58		416.24	0.00	416.24			

**TABLE 4**  
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1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation <sup>3</sup> Total Well Depth (TOC)	Comments
RMW-48B	(Shallow)	01/09/07 ***	435.99				H2A Present			50.28	385.71	
		04/10/07	434.16				Skimmer Pump in Well					
		07/10/07	434.16	34.63	36.70	399.53	397.46	2.07	399.07	50.26		
		10/09/07	434.16				Skimmer Pump in Well					
RMW-49A	N. Olive	01/09/07	429.86	16.19	16.19	413.67	0.00	413.67	16.48	413.38		
		04/10/07	429.86	16.11	16.11	413.75	0.00	413.75				
		07/10/07	429.86	16.13	16.13	413.73	0.00	413.73	16.50			
		10/09/07	429.86	16.11	16.11	413.75	0.00	413.75				
RMW-49B	(Shallow)	01/09/07 ***	433.58	37.49	39.19	396.09	394.39	1.70	395.72	46.97	386.61	Measured from top of well head
		04/10/07	429.96	31.42	31.89	398.54	398.07	0.47	398.44			
		07/10/07	429.96	30.47	31.79	399.49	398.17	1.32	399.20	47.02		
		10/09/07	429.96				Skimmer Pump in Well					
RMW-50A	(Shallow)	01/10/07	431.82	34.28	34.28	397.54	0.00	397.54		431.82		
		04/11/07	431.82	32.03	32.03	399.79	0.00	399.79				
		07/10/07	431.82	30.44	30.44	401.38	0.00	401.38	44.65			
		10/09/07	431.82	32.51	32.51	399.31	0.00	399.31				
RMW-50B	(Intermediate)	01/10/07	431.66	34.16	34.16	397.50	0.00	397.50		431.66		
		04/11/07	431.66	31.42	31.42	400.24	0.00	400.24				
		07/10/07	431.66	30.38	30.38	401.28	0.00	401.28	70.25			
		10/09/07	431.66	32.57	32.57	399.09	0.00	399.09				
RMW-50C	(Deep)	01/10/07	431.64	34.13	34.13	397.51	0.00	397.51		431.64		
		04/11/07	431.64	31.40	31.40	400.24	0.00	400.24				
		07/10/07	431.64	30.34	30.34	401.30	0.00	401.30	95.81			
		10/09/07	431.64	32.53	32.53	399.11	0.00	399.11				
RMW-50D	(Basal)	01/10/07	431.60	34.01	34.01	397.59	0.00	397.59		431.60		
		04/11/07	431.60	31.27	31.27	400.33	0.00	400.33				
		07/10/07	431.60	30.24	30.24	401.36	0.00	401.36	> 100			
		10/09/07	431.60	32.41	32.41	399.19	0.00	399.19				
RMW-51A	(Shallow)	01/10/07	428.59	30.64	30.64	397.95	0.00	397.95		428.59		
		04/11/07	428.59	28.72	28.72	399.87	0.00	399.87				
		07/10/07	428.59	26.49	26.49	402.10	0.00	402.10	39.38			
		10/09/07	428.59	28.52	28.52	400.07	0.00	400.07				
RMW-51B	(Intermediate)	01/10/07	428.42	30.33	30.33	398.09	0.00	398.09		428.42		
		04/11/07	428.42	27.31	27.31	401.11	0.00	401.11				
		07/10/07	428.42	26.45	26.45	401.97	0.00	401.97	59.58			
		10/09/07	428.42	28.71	28.71	399.71	0.00	399.71				
RMW-51C	(Deep)	01/10/07	428.70	30.61	30.61	398.09	0.00	398.09		428.70		
		04/11/07	428.70	27.58	27.58	401.12	0.00	401.12				
		07/10/07	428.70	26.73	26.73	401.97	0.00	401.97	91.73			
		10/09/07	428.70	28.98	28.98	399.72	0.00	399.72				
RMW-51D	(Basal)	01/10/07	428.20	30.14	30.14	398.06	0.00	398.06		428.20		
		04/11/07	428.20	27.15	27.15	401.05	0.00	401.05				
		07/10/07	428.20	26.26	26.26	401.94	0.00	401.94	> 100			
		10/09/07	428.20	28.51	28.51	399.69	0.00	399.69				

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>3</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMW-52A	(Shallow)	01/10/07	432.37		33.30		399.07	0.00	399.07		432.37	
		04/11/07	432.37		30.37		402.00	0.00	402.00			
		07/10/07	432.37		29.58		402.79	0.00	402.79	42.91		
		10/09/07	432.37		31.75		400.62	0.00	400.62			
RMW-52B	(Intermediate)	01/10/07	432.30		33.24		399.06	0.00	399.06		432.30	
		04/11/07	432.30		30.08		402.22	0.00	402.22			
		07/10/07	432.30		29.40		402.90	0.00	402.90	75.50		
		10/09/07	432.30		31.69		400.61	0.00	400.61			
RMW-52C	(Deep)	01/10/07	432.26		33.18		399.08	0.00	399.08		432.26	
		04/11/07	432.26		29.99		402.27	0.00	402.27			
		07/10/07	432.26		29.34		402.92	0.00	402.92	96.20		
		10/09/07	432.26		31.61		400.65	0.00	400.65			
RMW-52D	(Basal)	01/10/07	432.21		33.12		399.09	0.00	399.09		432.21	
		04/11/07	432.21		29.93		402.28	0.00	402.28			
		07/10/07	432.21		29.28		402.93	0.00	402.93	> 100		
		10/09/07	432.21		31.56		400.65	0.00	400.65			
RMW-53A	(Intermediate)	01/10/07	433.55		34.08		399.47	0.00	399.47		433.55	
		04/11/07	433.55		30.75		402.80	0.00	402.80			
		07/10/07	433.55		30.26		403.29	0.00	403.29	74.46		
		10/09/07	433.55		32.55		401.00	0.00	401.00			
RMW-53B	(Deep)	01/10/07	433.46		33.96		399.50	0.00	399.50		433.46	
		04/11/07	433.46		30.64		402.82	0.00	402.82			
		07/10/07	433.46		30.16		403.30	0.00	403.30	94.35		
		10/09/07	433.46		32.44		401.02	0.00	401.02			
RMW-53C	(Basal)	01/10/07	433.46		33.97		399.49	0.00	399.49		433.46	
		04/11/07	433.46		30.66		402.80	0.00	402.80			
		07/10/07	433.46		30.14		403.32	0.00	403.32	> 100		
		10/09/07	433.46		32.44		401.02	0.00	401.02			
RMW-54A	(Intermediate)	01/10/07	431.80		32.28		399.52	0.00	399.52		431.80	
		04/11/07	431.80		29.31		402.49	0.00	402.49			
		07/10/07	431.80		28.58		403.22	0.00	403.22	69.48		
		10/09/07	431.80		30.76		401.04	0.00	401.04			
RMW-54B	(Deep)	01/10/07	431.70		32.17		399.53	0.00	399.53		431.70	
		04/11/07	431.70		29.21		402.49	0.00	402.49			
		07/10/07	431.70		28.45		403.25	0.00	403.25	90.30		
		10/09/07	431.70		30.67		401.03	0.00	401.03			
RMW-54C	(Basal)	01/10/07	431.59		32.06		399.53	0.00	399.53		431.59	
		04/11/07	431.59		29.10		402.49	0.00	402.49			
		07/10/07	431.59		28.36		403.23	0.00	403.23	> 100		
		10/09/07	431.59		30.54		401.05	0.00	401.05			
RMW-55A	(Intermediate)	01/10/07	429.86		30.36		399.50	0.00	399.50		429.86	
		04/11/07	429.86		27.73		402.13	0.00	402.13			
		07/10/07	429.86		26.81		403.05	0.00	403.05	74.95		
		10/09/07	429.86		28.87		400.99	0.00	400.99			

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (TOC) (ft)	Total Well Depth (TOC) (ft)	Comments
RMW-55B	Main Sand (Deep)	01/10/07	429.99		30.48		399.51	0.00	399.51		429.99		
		04/11/07	429.99		27.85		402.14	0.00	402.14				
		07/10/07	429.99		26.91		403.08	0.00	403.08	92.20			
		10/09/07	429.99		28.99		401.00	0.00	401.00				
RMW-55C	Main Sand (Basal)	01/10/07	430.06		30.57		399.49	0.00	399.49		430.06		
		04/11/07	430.06		27.92		402.14	0.00	402.14				
		07/10/07	430.06		26.96		403.10	0.00	403.10	> 100			
		10/09/07	430.06		29.07		400.99	0.00	400.99				
RMW-56A	EPA	01/09/07	434.71	40.69	40.90	394.02	393.81	0.21	393.97	44.69	390.02		
		04/11/07	434.71	36.50	36.83	398.21	397.88	0.33	398.14				
		07/10/07	434.71	36.55	41.24	398.16	393.47	4.69	397.13	44.70			
		10/09/07	434.71	38.91	40.42	395.80	394.29	1.51	395.47				
RMW-56B	Main Sand (below D Clay)	01/09/07	434.61		40.69		393.92	0.00	393.92	59.14	375.47		
		04/10/07	434.61		36.29		398.32	0.00	398.32				
		07/10/07	434.61		37.17		397.44	0.00	397.44	59.05			
		10/09/07	434.61		39.09		395.52	0.00	395.52				
RMW-57A	EPA	01/09/07 ***	436.03			H2A Present				43.68			
		04/10/07	434.23	36.04	36.39	398.19	397.84	0.35	398.11				
		07/10/07	434.23	34.86	37.79	399.37	396.44	2.93	398.73	43.72			
		10/09/07	434.23	36.94	38.92	397.29	395.31	1.98	396.85				
RMW-57B	Main Sand (below D Clay)	01/09/07 ***	435.98			H2A Present				56.32			
		04/10/07	434.19		35.78		398.41	0.00	398.41				
		07/10/07	434.19		35.36		398.83	0.00	398.83	56.33			
		10/09/07	434.19		37.21		396.98	0.00	396.98				
RMW-58A	EPA	01/09/07	430.93	33.17	35.85	397.76	395.08	2.68	397.17	40.68	390.25		
		04/10/07	430.93	31.75	35.01	399.18	395.92	3.26	398.46				
		07/10/07	430.93	29.14	34.52	401.79	396.41	5.38	400.61	40.70			
		10/09/07	430.93	33.77	34.12	397.16	396.81	0.35	397.08				
RMW-58B	Main Sand (below D Clay)	01/09/07	430.98	35.17	35.54	395.81	395.44	0.37	395.73	54.03	376.95		
		04/10/07	430.98	33.16	33.51	397.82	397.47	0.35	397.74				
		07/10/07	430.98	32.10	32.45	398.88	398.53	0.35	398.80	54.05			
		10/09/07	430.98	31.75	34.80	399.23	396.18	3.05	398.56				
RMW-59A	EPA	01/09/07	430.83	33.10	35.79	397.73	395.04	2.69	397.14	39.87	390.96		
		04/10/07	430.83	31.63	35.03	399.20	395.80	3.40	398.45				
		07/10/07	430.83	29.04	34.45	401.79	396.38	5.41	400.60	39.88			
		10/09/07	430.83	31.62	34.83	399.21	396.00	3.21	398.50				
RMW-59B	Main Sand (below D Clay)	01/09/07	430.97		35.25		395.72	0.00	395.72	54.22	376.75		
		04/10/07	430.97		33.22		397.75	0.00	397.75				
		07/10/07	430.97		32.20		398.77	0.00	398.77	54.39			
		10/09/07	430.97		33.84		397.13	0.00	397.13				
RMW-60A	N. Olive	01/09/07	430.79		17.71		413.08	0.00	413.08	17.73	413.06		
		04/10/07	430.79		17.75		413.04	0.00	413.04				
		07/10/07	430.79		17.73		413.06	0.00	413.06	17.81			
		10/09/07	430.79		17.75		413.04	0.00	413.04				
RMW-60B	EPA	01/09/07	430.78	33.17	35.78	397.61	395.00	2.61	397.04	41.56	389.22		
		04/10/07	430.78	31.73	35.04	399.05	395.74	3.31	398.32				
		07/10/07	430.78	29.01	34.51	401.77	396.27	5.50	400.56	41.60			
		10/09/07	430.78	31.52	34.93	399.26	395.85	3.41	398.51				

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation Total Well Depth (TOC) (ft.)	Comments
RMW-60C	Main Sand (below D Clay)	01/09/07	430.78	33.85	39.67	396.93	391.11	5.82	395.65	54.20	376.58	
		04/10/07	430.78	31.62	38.48	399.16	392.30	6.86	397.65			
		07/10/07	430.78	30.59	37.37	400.19	393.41	6.78	398.70	54.28		
		10/09/07	430.78	32.11	39.26	398.67	391.52	7.15	397.10			
RMW-61A	EPA	01/09/07	429.91	32.60	34.72	397.31	395.19	2.12	396.84	43.23	386.68	
		04/10/07	429.91	31.59	32.54	398.32	397.37	0.95	398.11			
		07/10/07	429.91	28.11	33.20	401.80	396.71	5.09	400.68	43.34		
		10/09/07	429.91	31.03	33.12	398.88	396.79	2.09	398.42			
RMW-61B	Main Sand (below D Clay)	01/09/07	429.71	32.24	34.33	395.38	395.38	0.00	395.38	55.20	374.51	
		04/10/07	429.71	32.24	32.24	397.47	397.47	0.00	397.47			
		07/10/07	429.71	30.82	30.82	398.89	398.89	0.00	398.89	55.15		
		10/09/07	429.71	32.75	32.75	396.96	396.96	0.00	396.96			
RMW-62A	EPA	01/09/07	429.70	32.35	34.57	397.35	395.13	2.22	396.86	42.96	386.74	
		04/10/07	429.70	31.42	32.08	398.28	397.62	0.66	398.13			
		07/10/07	429.70	28.00	32.85	401.70	396.85	4.85	400.63	42.90		
		10/10/07	429.70	30.69	33.10	399.01	396.60	2.41	398.48			
RMW-62B	Main Sand (below D Clay)	01/09/07	429.52	32.03	34.09	395.43	395.43	0.00	395.43	55.92	373.60	
		04/10/07	429.52	32.03	32.03	397.49	397.49	0.00	397.49			
		07/10/07	429.52	30.57	30.57	398.95	398.95	0.00	398.95	55.93		
		10/09/07	429.52	32.52	32.52	397.00	397.00	0.00	397.00			
RMW-63A	N. Olive	01/09/07	429.75	14.04	14.04	415.71	415.71	0.00	415.71	18.10	411.65	
		04/10/07	429.75	13.02	13.02	416.73	416.73	0.00	416.73			
		07/10/07	429.75	12.82	12.82	416.93	416.93	0.00	416.93	18.11		
		10/09/07	429.75	15.21	15.21	414.54	414.54	0.00	414.54			
RMW-63B	EPA	01/09/07	429.63	32.80	32.80	396.83	396.83	0.00	396.83	43.53	386.10	
		04/10/07	429.63	31.48	31.48	398.15	398.15	0.00	398.15			
		07/10/07	429.63	29.07	29.07	400.56	400.56	0.00	400.56	43.58		
		10/09/07	429.63	31.30	31.30	398.33	398.33	0.00	398.33			
RMW-63C	Main Sand (below D Clay)	01/09/07	429.53	34.02	34.02	395.51	395.51	0.00	395.51	55.79	373.74	
		04/10/07	429.53	32.01	32.01	397.52	397.52	0.00	397.52			
		07/10/07	429.53	30.55	30.55	398.98	398.98	0.00	398.98	55.76		
		10/09/07	429.53	32.52	32.52	397.01	397.01	0.00	397.01			
RMW-64A	A Clay		433.52									
RMW-64B	EPA	01/09/07	433.52	37.85	38.59	395.67	394.93	0.74	395.51	44.18	389.34	
		04/10/07	433.52	35.82	35.82	397.70	397.70	0.00	397.70			
		07/10/07	433.52	33.90	36.29	399.62	397.23	2.39	399.09	43.90		
		10/09/07	433.52	35.74	38.08	397.78	395.44	2.34	397.27			
RMW-64C	Main Sand (below D Clay)	01/09/07	433.61	38.12	38.12	395.49	395.49	0.00	395.49	56.11	377.50	
		04/10/07	433.61	35.55	35.57	398.06	398.04	0.02	398.06			
		07/10/07	433.61	34.72	34.75	398.89	398.86	0.03	398.88	56.16		
		10/09/07	433.61	36.51	36.57	397.10	397.04	0.06	397.09			
RMW-65A	Main Silt	01/09/07	433.79	30.00	30.00	403.79	403.79	0.00	403.79		433.79	
		04/11/07	433.79	29.98	29.98	403.81	403.81	0.00	403.81			
		07/10/07	433.79	29.96	29.96	403.83	403.83	0.00	403.83	30.51		
		10/09/07	433.79	30.12	30.12	403.67	403.67	0.00	403.67			

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located In Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Non-Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMW-65B	Main Sand	01/09/07	433.90		38.05		395.85	0.00	395.85		433.90	
		04/11/07	433.90		36.63		397.27	0.00	397.27			
		07/10/07	433.90		35.69		398.21	0.00	398.21	43.35		
		10/09/07	433.90		36.82		397.08	0.00	397.08			
RMW-65C	Main Sand (Intermediate)	01/09/07	433.80		37.86		395.94	0.00	395.94		433.80	
		04/11/07	433.80		36.40		397.40	0.00	397.40			
		07/10/07	433.80		35.60		398.20	0.00	398.20	68.35		
		10/09/07	433.80		36.60		397.20	0.00	397.20			
RMW-65D	Main Sand (Deep)	01/09/07	433.70		37.73		395.97	0.00	395.97		433.70	
		04/11/07	433.70		36.25		397.45	0.00	397.45			
		07/10/07	433.70		35.47		398.23	0.00	398.23	87.89		
		10/09/07	433.70		36.53		397.17	0.00	397.17			
RMW-65E	Main Sand (Basal)	01/09/07	433.78		37.79		395.99	0.00	395.99		433.78	
		04/11/07	433.78		36.31		397.47	0.00	397.47			
		07/10/07	433.78		35.52		398.26	0.00	398.26	>100		
		10/09/07	433.78		36.53		397.25	0.00	397.25			
RMW-66A	Main Silt	01/09/07	430.15		25.80		404.35	0.00	404.35		430.15	
		04/11/07	430.15		25.75		404.40	0.00	404.40			
		07/10/07	430.15		25.72		404.43	0.00	404.43	26.02		
		10/09/07	430.15		25.74		404.41	0.00	404.41			
RMW-66B	Main Sand (Shallow)	01/09/07	430.09		34.06		396.03	0.00	396.03		430.09	
		04/11/07	430.09		32.96		397.13	0.00	397.13			
		07/10/07	430.09		32.08		398.01	0.00	398.01	40.00		
		10/09/07	430.09		33.01		397.08	0.00	397.08			
RMW-66C	Main Sand (Intermediate)	01/09/07	430.19		34.15		396.04	0.00	396.04		430.19	
		04/11/07	430.19		33.00		397.19	0.00	397.19			
		07/10/07	430.19		32.14		398.05	0.00	398.05	64.98		
		10/09/07	430.19		33.08		397.11	0.00	397.11			
RMW-66D	Main Sand (Deep)	01/09/07	429.89		33.85		396.04	0.00	396.04		429.89	
		04/11/07	429.89		32.69		397.20	0.00	397.20			
		07/10/07	429.89		31.85		398.04	0.00	398.04	79.71		
		10/09/07	429.89		32.81		397.08	0.00	397.08			
RMW-66E	Main Sand (Basal)	01/09/07	429.99		33.93		396.06	0.00	396.06		429.99	
		04/11/07	429.99		32.79		397.20	0.00	397.20			
		07/10/07	429.99		31.95		398.04	0.00	398.04	>100		
		10/09/07	429.99		32.89		397.10	0.00	397.10			
RMW-67A	Main Silt	01/09/07	430.99							26.42	404.57	TD= January 2007
		04/11/07	430.99		25.93		405.06	0.00	405.06			
		07/11/07	430.99		26.03		404.96	0.00	404.96	26.30		
		10/09/07	430.99		25.99		405.00	0.00	405.00			
RMW-67B	Main Sand (Shallow)	01/09/07	431.12		35.06		396.06	0.00	396.06		431.12	
		04/11/07	431.12		34.31		396.81	0.00	396.81			
		07/11/07	431.12		33.62		397.50	0.00	397.50	40.41		
		10/09/07	431.12		34.33		396.79	0.00	396.79			

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**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
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1190500002 -- Madison County -- ILD041889023  
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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
RMW-67C	Main Sand (Intermediate)	01/09/07	430.94		34.87		396.07	0.00	396.07		430.94		
		04/11/07	430.94		34.13		396.81	0.00	396.81				
		07/10/07	430.94		33.41		397.53	0.00	397.53	67.88			
		10/09/07	430.94		34.12		396.82	0.00	396.82				
RMW-68A	N. Olive	01/09/07	432.70		18.62		414.08	0.00	414.08		432.70		
		04/11/07	432.70		18.65		414.05	0.00	414.05				
		07/10/07	432.70		17.58		415.12	0.00	415.12	19.12			
		10/09/07	432.70		18.66		414.04	0.00	414.04				
RMW-68B	B/C Clay (Permeable Lens)	01/09/07	432.92	29.59	29.62	403.33	403.30	0.03	403.32		432.92		
		04/11/07	432.92	27.70	29.81	405.22	403.11	2.11	404.76				
		07/10/07	432.92	25.80	29.79	407.12	403.13	3.99	406.24	29.96			
		10/09/07	432.92	27.32	29.80	405.60	403.12	2.48	405.05				
RMW-68C	EPA	01/09/07	432.76		35.28		397.48	0.00	397.48		432.76		
		04/11/07	432.76		33.47		399.29	0.00	399.29				
		07/10/07	432.76		31.82		400.94	0.00	400.94	43.59			
		10/09/07	432.76		33.81		398.95	0.00	398.95				
RMW-68D	Main Sand (below D Clay)	01/09/07	432.63		36.53		396.10	0.00	396.10		432.63		
		04/11/07	432.63		34.40		398.23	0.00	398.23				
		07/10/07	432.63		33.27		399.36	0.00	399.36	57.90			
		10/09/07	432.63		35.00		397.63	0.00	397.63				
RMW-68E	Main Sand (Intermediate)	01/09/07	432.51		36.31		396.20	0.00	396.20		432.51		
		04/11/07	432.51		34.25		398.26	0.00	398.26				
		07/10/07	432.51		33.18		399.33	0.00	399.33	72.90			
		10/09/07	432.51		34.84		397.67	0.00	397.67				
RMW-68F	Main Sand (Deep)	01/09/07	432.51		36.29		396.22	0.00	396.22		432.51		
		04/11/07	432.51		34.23		398.28	0.00	398.28				
		07/10/07	432.51		33.17		399.34	0.00	399.34	92.78			
		10/09/07	432.51		34.82		397.69	0.00	397.69				
RMW-68G	Main Sand (Basal)	01/09/07	432.46		36.27		396.19	0.00	396.19		432.46		
		04/11/07	432.46		34.18		398.28	0.00	398.28				
		07/10/07	432.46		33.11		399.35	0.00	399.35	>100			
		10/09/07	432.46		34.77		397.69	0.00	397.69				
RMW-69A	N. Olive	01/09/07	432.35		14.85		417.50	0.00	417.50		432.35		
		04/11/07	432.35		13.30		419.05	0.00	419.05				
		07/10/07	432.35		13.68		418.67	0.00	418.67	21.99			
		10/09/07	432.35		16.41		415.94	0.00	415.94				
RMW-69B	EPA	01/09/07	432.41		34.73		397.68	0.00	397.68		432.41		
		04/11/07	432.41	32.86	33.28	399.55	399.13	0.42	399.46				
		07/10/07	432.41	31.46	33.39	400.95	399.02	1.93	400.53	40.94			
		10/09/07	432.41	33.23	34.22	399.18	398.19	0.99	398.96				
RMW-69C	Main Sand (below D Clay)	01/09/07	432.43		35.61		396.82	0.00	396.82		432.43		
		04/11/07	432.43		33.94		398.49	0.00	398.49				
		07/11/07	432.43		32.97		399.46	0.00	399.46	53.71			
		10/09/07	432.43		34.27		398.16	0.00	398.16				

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
RMW-69D	(Intermediate)	01/09/07	432.43		35.50		396.93	0.00	396.93		432.43		
		04/11/07	432.43		33.88		398.55	0.00	398.55				
		07/11/07	432.43		33.01		399.42	0.00	399.42	73.95			
		10/09/07	432.43		34.24		398.19	0.00	398.19				
RMW-69E	(Deep)	01/09/07	432.56		35.61		396.95	0.00	396.95		432.56		
		04/11/07	432.56		34.00		398.56	0.00	398.56				
		07/11/07	432.56		33.13		399.43	0.00	399.43	93.59			
		10/09/07	432.56		34.32		398.24	0.00	398.24				
RMW-69F	(Basal)	01/09/07	432.69		35.74		396.95	0.00	396.95		432.69		
		04/11/07	432.69		34.06		398.63	0.00	398.63				
		07/11/07	432.69		33.25		399.44	0.00	399.44	119.27			
		10/09/07	432.69		34.45		398.24	0.00	398.24				
RMW-70A	(Permeable Lens)	01/09/07	432.21		20.05		412.16	0.00	412.16		432.21		
		04/11/07	432.21										
		07/11/07	432.21		19.98		412.23	0.00	412.23	20.46			
		10/09/07	432.21		20.04		412.17	0.00	412.17				
RMW-70B	Main Silt	01/09/07	432.30		21.84		410.46	0.00	410.46		432.30		
		04/11/07	432.30		20.47		411.83	0.00	411.83				
		07/11/07	432.30		20.72		411.58	0.00	411.58	33.66			
		10/09/07	432.30		23.82		408.48	0.00	408.48				
RMW-70C	(Shallow)	01/09/07	432.24		35.00		397.24	0.00	397.24		432.24		
		04/11/07	432.24		33.14		399.10	0.00	399.10				
		07/11/07	432.24		32.30		399.94	0.00	399.94	51.49			
		10/09/07	432.24		33.56		398.68	0.00	398.68				
RMW-70D	(Intermediate)	01/09/07	432.07		34.73		397.34	0.00	397.34		432.07		
		04/11/07	432.07		33.03		399.04	0.00	399.04				
		07/11/07	432.07		32.08		399.99	0.00	399.99	67.35			
		10/09/07	432.07		33.38		398.69	0.00	398.69				
RMW-70E	(Deep)	01/09/07	428.64		31.35		397.29	0.00	397.29		428.64		
		04/11/07	428.64		29.63		399.01	0.00	399.01				
		07/11/07	428.64		28.63		400.01	0.00	400.01	84.42			
		10/09/07	428.64		29.92		398.72	0.00	398.72				
RMW-70F	(Basal)	01/09/07	428.83		31.53		397.30	0.00	397.30		428.83		
		04/11/07	428.83		29.85		398.98	0.00	398.98				
		07/11/07	428.83		28.88		399.95	0.00	399.95	116.28			
		10/09/07	428.83		30.20		398.63	0.00	398.63				
RMW-71A	(Intermediate)	01/09/07	428.94		29.42		399.52	0.00	399.52		428.94		
		04/11/07	428.94		28.98		399.96	0.00	399.96				
		07/11/07	428.94		28.60		400.34	0.00	400.34	65.27			
		10/09/07	428.94		29.50		399.44	0.00	399.44				
RMW-71B	(Deep)	01/09/07	428.76		29.24		399.52	0.00	399.52		428.76		
		04/11/07	428.76		28.77		399.99	0.00	399.99				
		07/11/07	428.76		28.36		400.40	0.00	400.40	85.21			
		10/09/07	428.76		29.31		399.45	0.00	399.45				

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Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation <sup>2</sup> (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation - Total Well Depth (TOC) (ft)	Comments
RMW-71C	(Basal) Main Sand	01/09/07	428.71		29.15		399.56	0.00	399.56		428.71	
		04/11/07	428.71		28.78		399.93	0.00	399.93			
		07/11/07	428.71		28.35		400.36	0.00	400.36	115.11		
		10/09/07	428.71		29.22		399.49	0.00	399.49			
RMW-72A	N. Olive	01/09/07	429.26				0.00			429.26		
		04/10/07	429.26				0.00					
		07/10/07	429.26				0.00			17.87		
		10/09/07	429.26		18.15		411.11	0.00	411.11			
RMW-72B	EPA	01/09/07	429.30	33.00	36.31	396.30	392.99	3.31	395.57		429.30	
		04/10/07	429.30	30.92	32.40	398.38	396.90	1.48	398.05			
		07/10/07	429.30			Mobile ICE Unit Present						
		10/09/07	429.30			H2A Present						
RMW-72C	(below D Clay) Main Sand	01/09/07	429.36		33.81		395.55	0.00	395.55		429.36	
		04/10/07	429.36		31.30		398.06	0.00	398.06			
		07/10/07	429.36		30.90		398.46	0.00	398.46	52.74		
		10/09/07	429.36		32.21		397.15	0.00	397.15			
RMW-73A	N. Olive	01/09/07	430.15		15.88		414.27	0.00	414.27		430.15	
		04/10/07	430.15		15.91		414.24	0.00	414.24			
		07/10/07	430.15		16.09		414.06	0.00	414.06	16.25		
		10/09/07	430.15		14.54		415.61	0.00	415.61			
RMW-73B	EPA	01/09/07	430.12	34.28	34.30	395.84	395.82	0.02	395.84		430.12	
		04/10/07	430.12	32.21	32.47	397.91	397.65	0.26	397.85			
		07/10/07	430.12	30.04	30.35	400.08	399.77	0.31	400.01	40.35		
		10/09/07	430.12	32.07	32.30	398.05	397.82	0.23	398.00			
RMW-73C	(below D Clay) Main Sand	01/09/07	430.16		34.97		395.19	0.00	395.19		430.16	
		04/10/07	430.16		32.87		397.29	0.00	397.29			
		07/10/07	430.16		31.39		398.77	0.00	398.77	53.76		
		10/09/07	430.16		33.42		396.74	0.00	396.74			
RMW-74	N. Olive	01/09/07	433.84		19.18		414.66	0.00	414.66		433.84	
		04/10/07	433.84		16.86		416.98	0.00	416.98			
		07/10/07	433.84		14.08		419.76	0.00	419.76	17.49		
RMW-75	N. Olive	01/09/07	432.57		18.12		414.45	0.00	414.45		432.57	
		04/10/07	432.57		15.28		417.29	0.00	417.29			
		07/10/07	432.57		14.36		418.21	0.00	418.21	19.38		
RMW-76	N. Olive	01/09/07	432.34		17.64		414.70	0.00	414.70		432.34	
		04/10/07	432.34		15.19		417.15	0.00	417.15			
		07/10/07	432.34		15.03		417.31	0.00	417.31	17.28		
RMW-77	N. Olive	01/09/07	429.61				0.00			17.21	412.40	TD= January 2007
		04/10/07	429.61		16.16		413.45	0.00	413.45			
		07/10/07	429.61		14.50		415.11	0.00	415.11	17.58		
RMW-78	N. Olive	01/09/07	429.41		16.44		412.97	0.00	412.97	16.45	412.96	TD= October 2006
		04/10/07	429.41		14.99		414.42	0.00	414.42			
		07/10/07	429.41		14.84		414.57	0.00	414.57	17.33		

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located In Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well #	Stratum/Screened Material	Survey Date	(A) Top of Casing Elevations (ft.)	(B) Depth to Hydrocarbon (ft.)	(C) Depth to Water (ft.)	(A)-(B) Hydrocarbon Surface Elevation (ft.)	(A)-(C) Water Surface Elevation (ft.)	(C)-(B) Hydrocarbon Thickness (ft.)	Piezometric Surface Elevation (ft.)	Total Well Depth (TOC) (ft.)	Total Depth Elevation Total Well Depth (TOC) (ft.)	Comments
RMW-79	N. Olive	01/09/07	429.60		16.12	413.48	0.00	413.48	17.99	411.61	TD= October 2006	
		04/10/07	429.60		13.77	415.83	0.00	415.83				
		07/10/07	429.60		14.66	414.94	0.00	414.94	18.76			
RMW-80A	EPA	10/09/07	430.23		32.11	398.12	0.00	398.12				
RMW-80B	Main Sand (below D Clay)	10/09/07	430.15		32.86	397.29	0.00	397.29				
RMW-81A	N. Olive	10/09/07	430.88						18.60			
RMW-81B	EPA	10/09/07	431.00	32.05	34.55	398.95	396.45	2.50	398.40			
RMW-81C	Main Sand (below D Clay)	10/09/07	431.08	33.89	33.96	397.19	397.12	0.07	397.17			
RMW-82A	N. Olive	10/09/07	427.67		11.05	416.62	0.00	416.62				
RMW-82B	EPA	10/09/07	427.86	30.02	30.95	397.84	396.91	0.93	397.84			
RMW-82C	Main Sand (below D Clay)	10/09/07	427.73	30.23	31.14	397.50	396.59	0.91	397.30			
RMW-83A	N. Olive	10/09/07	433.19		14.04	419.15	0.00	419.15				
RMW-83B	Main Sand (Shallow)	10/09/07	433.09	35.23	37.66	397.86	395.43	2.43	397.33			
RMW-84A	N. Olive	10/09/07	433.33		16.46	416.87	0.00	416.87				
RMW-84B	EPA	10/09/07	433.47	35.64	37.70	397.83	395.77	2.06	397.38			
RMW-84C	Main Sand (below D Clay)	10/09/07	433.53		36.17	397.36	0.00	397.36				
RMW-85A	N. Olive	10/09/07	430.32		14.78	415.54	0.00	415.54				
RMW-85B	EPA	10/09/07	430.20	30.75	33.74	399.45	396.46	2.99	398.79			
RMW-85C	Main Sand (below D Clay)	10/09/07	430.23		32.82	397.41	0.00	397.41				
RMW-86A	N. Olive	10/09/07	433.49		21.47	412.02	0.00	412.02				
RMW-86B	EPA	10/09/07	433.53	35.50	37.54	398.03	395.99	2.04	397.58			
RMW-86C	Main Sand (below D Clay)	10/09/07	433.46		35.85	397.61	0.00	397.61				
RMW-87A	N. Olive	10/09/07	429.30		15.95	413.35	0.00	413.35				
RMW-87B	EPA	10/09/07	429.38	30.91	33.75	398.47	395.63	2.84	397.85			
RMW-87C	Main Sand (below D Clay)	10/09/07	428.97		31.13	397.84	0.00	397.84				
RMW-88A	EPA	10/09/07	428.32	27.91	32.13	400.41	396.19	4.22	399.49			
RMW-88B	Main Sand (below D Clay)	10/09/07	428.30	30.03	30.73	398.27	397.57	0.70	398.12			
RMW-89A	Main Silt	10/09/07	429.06		24.57	404.49	0.00	404.49				
RMW-89B	Main Sand (Shallow)	10/09/07	428.98	28.13	39.04	400.85	389.94	10.91	398.45			
RMW-90A	Main Silt	10/09/07	430.01		26.50	403.51	0.00	403.51				
RMW-90B	Main Sand (Shallow)	10/09/07	429.83	30.45	37.15	399.38	392.68	6.70	397.91			

**TABLE 4**  
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1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC) (ft)	Comments
RMW-91A	A Clay (Permeable Lens)	10/09/07	428.96		12.38		416.58	0.00	416.58			
RMW-91B	EPA	10/09/07	428.54	30.73	32.23	397.81	396.31	1.50	397.48			
RMW-91C	Main Sand (below D Clay)	10/09/07	428.86		31.30		397.56	0.00	397.56			
RMW-92A	Main Silt	10/09/07	431.65					0.00		24.99		
RMW-92B	Main Sand (Shallow)	10/09/07	431.78		34.32		397.46	0.00	397.46			
	N. Olive	01/09/07	429.19					0.00			429.19	
RMW-93A	N. Olive	04/10/07	429.19					0.00				
		07/10/07	429.19					0.00		20.47		
		10/09/07	429.19		20.49		408.70	0.00	408.70			
RMW-93B		01/09/07	429.18	32.73	35.97	396.45	393.21	3.24	395.74		429.18	
	EPA	04/10/07	429.18	30.90	31.92	398.28	397.26	1.02	398.06			
		07/10/07	429.18	29.64	32.10	399.54	397.08	2.46	399.00	40.56		
		10/09/07	429.18	31.25	33.82	397.93	395.36	2.57	397.36			
RMW-94A		01/09/07	429.61		19.51		410.10	0.00	410.10	19.95	409.66	TD= October 2006
	N. Olive	04/10/07	429.61		19.53		410.08	0.00	410.08			
		07/10/07	429.61		19.54		410.07	0.00	410.07	19.94		
		10/09/07	429.61		19.24		410.37	0.00	410.37			
RMW-94B		01/09/07	429.56	33.21	35.66	396.35	393.90	2.45	395.81		429.56	
	(Shallow)	04/10/07	429.56	31.06	31.81	398.50	397.75	0.75	398.34			
		07/10/07	429.56	29.96	31.74	399.60	397.82	1.78	399.21	45.34		
		10/09/07	429.56	31.41	34.79	398.15	394.77	3.38	397.41			
RMW-95		01/09/07 ***	432.66	36.78	38.51	395.88	394.15	1.73	395.50		432.66	Measured from top of well head
	(Shallow)	04/10/07	429.68	31.25	31.59	398.43	398.09	0.34	398.36			
		07/10/07	429.68	30.09	31.70	399.59	397.98	1.61	399.24	45.31		
		10/09/07	429.68	31.86	33.60	397.82	396.08	1.74	397.44			
RMW-96		01/09/07 ***	431.69	35.57	37.46	396.12	394.23	1.89	395.70		431.69	Measured from top of well head
	(Shallow)	04/10/07	429.68	31.27	31.67	398.41	398.01	0.40	398.32			
		07/10/07	429.68	30.00	32.22	399.68	397.46	2.22	399.19	45.93		
		10/09/07	429.68	31.86	33.80	397.82	395.88	1.94	397.39			
RMW-97		01/09/07 ***	432.94	36.89	38.99	396.05	393.95	2.10	395.59		432.94	Measured from top of well head
	(Shallow)	04/10/07	429.83	31.39	31.87	398.44	397.96	0.48	398.33			
		07/10/07	429.83	30.06	32.61	399.77	397.22	2.55	399.21	46.24		
		10/09/07	429.83	32.00	33.96	397.83	395.87	1.96	397.40			
RMW-98A		01/09/07	429.75					0.00			429.75	
	Main Silt	04/10/07	429.75					0.00				
		07/10/07	429.75		24.30		405.45	0.00	405.45	24.72		
		10/09/07	429.75		19.11		410.64	0.00	410.64			
RMW-98B		01/09/07	429.69	33.33	34.96	396.36	394.73	1.63	396.00		429.69	
	(Shallow)	04/10/07	429.69	30.71	33.76	398.98	395.93	3.05	398.31			
		07/10/07	429.69	29.03	36.71	400.66	392.98	7.68	398.97	39.62		
		10/09/07	429.69	30.30	39.60	399.39	390.09	9.30	397.34			

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located in Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A) Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Total Depth Elevation Total Well Depth (TOC)	Comments
RPW-01	EPA / Main	01/09/07	431.44	56.26	56.31	375.18	375.13	0.05	375.17			
		04/10/07	431.44		33.14		398.30	0.00	398.30			
		07/10/07	431.44	37.50	38.72	393.94	392.72	1.22	393.67			
		10/09/07	431.36	40.52	41.13	390.84	390.23	0.61	390.71			
SVE-1S	N. Olive	01/09/07	431.11		24.60		406.51	0.00	406.51	21.54	409.57	
		04/10/07	431.11		25.23		405.88	0.00	405.88			
		07/10/07	431.11									
		10/09/07	431.11									
SVE-1D	EPA	01/09/07	430.66	36.18	36.60	394.48	394.06	0.42	394.39	44.56	386.10	TD= January 2006
		04/10/07	430.66		33.12		397.54	0.00	397.54			
		07/10/07	430.66									
		10/09/07	430.66									
T-1	Main Sand (Shallow)	01/10/07	431.44							46.48	384.96	
		04/11/07	431.44									
		07/10/07	431.44	29.06	30.55	402.38	400.89	1.49	402.05	43.95		
		10/09/07	431.44									
TH2-88	Main Sand (Shallow)	01/09/07	430.88		34.08		396.80	0.00	396.80	> 100		
		04/11/07	430.88		32.31		398.57	0.00	398.57			
		07/11/07	430.88		31.33		399.55	0.00	399.55	>100		
		10/09/07	430.88		32.74		398.14	0.00	398.14			
River Dock	NA	01/09/07	--		0.00			0.00				
		04/11/07	--		DRY			0.00				
		07/11/07	--		0.90			0.00				
		10/09/07	--		0.00			0.00				
River Dock	NA	01/09/07	--				Gauge Removed					
		04/11/07	--				Gauge Removed					
		10/09/07	--				Gauge Removed					
Fire Pond	NA	01/09/07	442.21		7.40		434.81	0.00	434.81		442.21	
		04/10/07	442.21		7.27		434.94	0.00	434.94			
		07/10/07	442.21		7.36		434.85	0.00	434.85	16.85		
		10/09/07	442.21		7.25		434.96	0.00	434.96			
Guard Basin	NA	01/09/07	432.10		15.46		416.64	0.00	416.64		432.10	
		04/12/07	432.10		15.89		416.21	0.00	416.21			
		07/11/07	432.10									
		10/09/07	432.10		14.95							

**TABLE 4**  
**SUMMARY OF 2007 QUARTERLY GROUNDWATER ELEVATIONS THROUGH OCTOBER**  
*Wells Located in Premcor Facility*

1190500002 -- Madison County -- ILD041889023  
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\* Total depths for January 2007 are from July 2006 unless otherwise indicated

Well	Stratum Screened	Date	(A)-Top of Casing Elevation (ft)	(B) Depth to Hydrocarbon (ft)	(C) Depth to Water (ft)	(A)-(B) Hydrocarbon Surface Elevation (ft)	(A)-(C) Water Surface Elevation (ft)	(C)-(B) Hydrocarbon Thickness (ft)	Piezometric Surface Elevation (ft)	Total Well Depth (TOC) (ft)	Hydro Total Depth Elevation (ft)	Total Well Depth (TOC) (ft)	Comments
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**NOTES:**

[redacted] = No data

PL = Pearmeable Lens

SG = Specific gravity of hydrocarbon determined to be an average of 0.78 on the Premcor facility for data recorded during and after 9/03.

<sup>1</sup> Piezometric surface elevation = [(A)-(C)]+S.G.[(C)-(B)]

\*\*\* = TOC of well was temporarily altered with an extension ( Extension length( ft) : RMW-57A - 1.80, RMW-57B- 1.79, RMW-48B-1.83, RMP-9C-1.73, RMP-10C-2.55, RMP-11C-2.47, RMW-49B- 3.62, RMW-95 2.98, RMW-96-2.01, RMW-97-3.11)

MP- and SVE-series installed by Clayton in 6/03. MP-series installed as vacuum monitoring probes. SVE-series installed as soil vapor extraction wells. MP- and SVE-series not appropriate for determining groundwater flow.

DS-series, RMW-series, RMP-series and RPW-series installed by Clayton.

Remaining wells installed by others. P-6N, E & S series wells immediately surround Production Well P-6.

TOC elevations surveyed to USGS datum by CMT.

Strataums qualified with a ? are currently under review.

Top of casing elevation changes present in the table indicate that the associated wells have been re-surveyed.

**TABLE 5**  
**COMPOUND/ANALYTE LIST FOR WATER SAMPLES - VOCs & Inorganics**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR000128249  
 The Hartford Working Group / Hartford, Illinois

PARAMETER	PREPARATION METHOD		ANALYTICAL METHOD		COMPOUND	METHOD DETECTION LIMIT (MDL) (a)	PRACTICAL QUANTITATION LIMIT (PQL) (b)	PROJECT DETECTION LIMIT (PDL) (b)
	Source	Method No.	Source	Method No.				
VOCs								
	SW-846	5030	SW-846	8260	Benzene	0.5	2	5
	SW-846	5030	SW-846	8260	Ethylbenzene	1	5	700
	SW-846	5030	SW-846	8260	Methyl tertiary butyl ether (MTBE)	0.5	2	70
	SW-846	5030	SW-846	8260	Toluene	1	5	1,000
Metals								
	SW-846	3020A	SW-846	7041	Antimony	0.0017	0.005	0.006
	SW-846	3020A	SW-846	7060A	Arsenic	0.0007	0.003	0.05
	SW-846	3005A	SW-846	6010	Barium	0.0024	0.005	2.0
	SW-846	3005A	SW-846	6010	Beryllium	0.0003	0.001	0.004
	SW-846	3005A	SW-846	6010	Cadmium	0.0003	0.002	0.005
	SW-846	3005A	SW-846	6010	Chromium-Total	0.004	0.01	0.1
	SW-846	3005A	SW-846	6010	Cobalt	0.0022	0.01	1.0
	SW-846	3005A	SW-846	6010	Iron	0.007	0.02	5.0
	SW-846	3020A	SW-846	7421	Lead	0.0004	0.002	0.0075
	--	--	SW-846	7470	Mercury	0.000051	0.0002	0.002
	SW-846	3005A	SW-846	6010	Nickel	0.0033	0.01	0.1
	SW-846	3020A	SW-846	7740	Selenium	0.0035	0.006	0.05
	SW-846	3005A	SW-846	6010	Silver	0.003	0.01	0.05
	SW-846	3005A	SW-846	6010	Vanadium	0.0032	0.01	0.049
	SW-846	3005A	SW-846	6010	Zinc	0.0021	0.01	5.0

**TABLE 5**  
**COMPOUND/ANALYTE LIST FOR WATER SAMPLES - VOCs & Inorganics**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR000128249  
 The Hartford Working Group / Hartford, Illinois

PARAMETER	PREPARATION METHOD		ANALYTICAL METHOD		COMPOUND	METHOD DETECTION LIMIT (MDL) <sup>(a)</sup>	PRACTICAL QUANTITATION LIMIT (PQL) <sup>(a)</sup>	PROJECT DETECTION LIMIT (PDL) <sup>(b)</sup>
	Source	Method No.	Source	Method No.				
<b>General</b>	--	--	Standard Method	M2320B	Alkalinity, Total (as, Ca, CO <sub>3</sub> )	0	0	NA
	--	--	EPA Method	E350.1	Ammonia as N	0.04	0.1	NA
	--	--	SW-846	9251.0	Chloride	0.6	1	200
	--	--	Standard Method	M5220D	COD	7.3	20	NA
	--	--	SW-846	9010B, 9014	Cyanide Total	0.003	0.007	0.2
	--	--	SW-846	9012A	Cyanide Total	0.003	0.007	0.2
	--	--	Standard Method	M2340C	Hardness (as, Ca, CO <sub>3</sub> )	3	5	NA
	--	--	EPA Method	E353.2	Nitrate as N	0.010	0.05	10.0
	--	--	EPA Method	E353.2	Nitrate-Nitrite	0.010	0.05	NA
	--	--	EPA Method	E353.2	Nitrite as N	0.01	0.05	NA
	--	--	EPA Method	E353.3	Nitrite as N	0.01	0.01	NA
	--	--	EPA Method	E365.2	Phosphorus as P	0.01	0.02	NA
	--	--	EPA Method	E365.4	Phosphorus as P	0.02	0.02	NA
	--	--	EPA Method	E365.2 (D)	Phosphorus, Dissolved as P	0.01	0.02	NA
	--	--	EPA Method	E365.4 (D)	Phosphorus, Dissolved as P	0.02	0.02	NA
	--	--	SW-846	9036.0	Sulfate	40	40	400
	--	--	SW-846	9038.0	Sulfate	1.0	5	400
	--	--	Standard Method	M4500SD	Sulfide	0.013	0.50	NA
	--	--	Standard Method	M2540C	Total Dissolved Solids	10	20	NA
	--	--	EPA Method	E415.1	Total Organic Carbon	0.5	1	NA
	--	--	Standard Method	M2540D	Total Suspended Solids	5	6	NA

**NOTES:**

µg/L = Micrograms per liter

mg/L = Milligrams per liter [except for ph (unitless)]

<sup>(a)</sup> = Method detection limit and practical quantitation limit as identified by Teklab, Inc. (Hennessy, 2007)

<sup>(b)</sup> = Project detection limit (PDL) is the IPCB TACO Tier 1 Class I Groundwater Remediation Objective (02/15/07)

NA = Not available

-- = Not applicable

**TABLE 6**  
**SAMPLE CONTAINER, PRESERVATION, AND HOLDING TIME REQUIREMENTS FOR WATER SAMPLES**  
*The Hartford Area Hydrocarbon Plume Site*

**1190505040 -- Madison County -- ILR000128249**  
**The Hartford Working Group / Hartford, Illinois**

PARAMETER	ANALYSIS	HOLDING TIME	CONTAINER	PRESERVATION
Organics	BTEX and MTBE	14 days	3-40 ml VOC vials	HCl to pH < 2, no headspace Maintained at 4 +/- 2 degrees Celcius
Metals	Inorganic Metals	180 days	500 ml plastic jar	HNO <sub>3</sub> to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Mercury	28 days		
General	Alkalinity	14 days	1 L plastic jar	Maintained at 4 +/- 2 degrees Celcius
	Chloride	28 days		
	Sulfate	28 days		
	Hardness	180 days		
	Nitrite	48 hours		
	Total Dissolved Solids (TDS)	7 days		
	Total Suspended Solids (TSS)	7 days		
	Total Cyanide	14 days	250 ml plastic jar	NaOH to pH>12 Maintained at 4 +/- 2 degrees Celcius
	Chemical Oxygen Demand (COD)	28 days	500 ml plastic jar	H <sub>2</sub> SO <sub>4</sub> to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Ammonia, Total	28 days		
	Phosphorus, Total	28 days		
	Nitrate +/- Nitrite	28 days		
	Phosphorus, Dissolved	28 days	250 ml plastic	H <sub>2</sub> SO <sub>4</sub> to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Total Organic Carbon (TOC)	28 days	125 ml plastic	H <sub>2</sub> SO <sub>4</sub> to pH<2 Maintained at 4 +/- 2 degrees Celcius
	Sulfide, Total	7 days	250 ml plastic jar	NaOH and ZnAcetate to pH>9 Maintained at 4 +/- 2 degrees Celcius

**Table 7**  
**Summary of Groundwater Analytical Result - BTEX and MTBE - October 2007**

**1190500002 -- Madison County -- ILD041889023**  
**The Hartford Working Group / Hartford, Illinois**

Well ID	Date	Constituent				
		Benzene	Toluene	Ethylbenzene	Xylene (total)	Methyl tert-butyl ether
TACO Comparison Value		5 ug/L	1,000 ug/L	700 ug/L	10,000 ug/L	70 ug/L
HMW-25	10/15/2007	2 U	5 U	5 U	5 U	2 U
HMW-26	10/15/2007	2 U	5 U	5 U	5 U	2 U
HMW-27	10/15/2007	2 U	5 U	5 U	5 U	2 U
HMW-28	10/16/2007	2 U	5 U	5 U	5 U	2 U
HMW-29	10/16/2007	2 U	5 U	5 U	5 U	2 U
HMW-38C	10/16/2007	173	8	11.5	67.4	2
HMW-38C <sup>1</sup>	10/16/2007	187	8.1	12.8	73.5	2.1
HMW-39B	10/16/2007	2 U	5 U	5 U	5 U	2 U
HMW-39C	10/15/2007	2 U	5 U	5 U	5 U	2 U
HMW-40C	10/10/2007	2 U	5 U	5 U	5 U	2 U
HMW-43C	10/11/2007	21.6	7	1 J	3.8 J	2 U
HMW-44D	10/12/2007	127	1.5 J	5 U	3.2 J	2 U
HMW-44D <sup>1</sup>	10/12/2007	131	1.5 J	5 U	3.3 J	2 U
HMW-47C	10/17/2007	7,220	290 J	1,300	3,160	170 J
HMW-48D	10/17/2007	1,110	250 U	250 U	250 U	100 U
HMW-49C	10/18/2007	616	3,960	2,820	7,250	388
HMW-49D	10/16/2007	949	14 J	50 U	15 J	79.3
HMW-50A	10/11/2007	2 U	5 U	5 U	5 U	2 U
HMW-50B	10/11/2007	2 U	5 U	5 U	5 U	2 U
HMW-50C	10/16/2007	121	7.8	5 U	9.4	41.6
HMW-52C	10/11/2007	2 U	5 U	5 U	5 U	2 U
HMW-53C	10/11/2007	84	2 J	5 U	1.6 J	2 U
HMW-54C	10/12/2007	2.5	2.1 J	5 U	1.6 J	2 U
HMW-54C <sup>1</sup>	10/12/2007	2.3	1.9 J	5 U	1.3 J	2 U
MP-59C	10/15/2007	21,400	29,000	2,510	13,300	1000 U
MP-78D	10/11/2007	14,900	23,100	2,510	10,900	1000 U
MP-81C	10/11/2007	2 U	5 U	5 U	5 U	2 U
MP-83C	10/11/2007	11,400	20,800	1,770	7,850	400 U
MP-85D	10/11/2007	4,780	110 J	500 U	110 J	200 U
MP-89C	10/10/2007	2 U	5 U	5 U	5 U	2 U
MP-92D	10/12/2007	2 U	5 U	5 U	5 U	2 U
MP-92D <sup>1</sup>	10/12/2007	2 U	5 U	5 U	5 U	2 U

Notes

=Exceeds Screening Criteria

<sup>1</sup> = Denotes Duplicate Sample

U = Not Detected (value preceding "U" denotes detection limit)

J = Estimated value

All units are in ug/L-micrograms per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives, last amended February 15, 2007. Comparison values used for comparison purposes only.

**Table 8**  
**Summary of Groundwater Analytical Results - Metal (Total and Dissolved) - October 2007**

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)	
TACO Comparison Value	0.006 mg/L	0.006 mg/L	0.05 mg/L	0.05 mg/L	2 mg/L	2 mg/L	0.004 mg/L	0.004 mg/L	0.005 mg/L	0.005 mg/L	0.1 mg/L	0.1 mg/L	1 mg/L	1 mg/L	5 mg/L	5 mg/L	
HMW-25	10/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.239	0.21	0.001 U	0.001 U	0.002 U	0.002 U	0.004 J	0.01 U	0.0022 U	0.01 U	0.113	0.02 U
HMW-26	10/15/2007	0.005 U	0.005 U	0.002 J	0.0022 J	0.15	0.136	0.001 U	0.001 U	0.0011 J	0.0008 J	0.01 U	0.0064 J	0.01 U	0.01 U	24.8 S	24.8
HMW-27	10/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.0914	0.0851	0.001 U	0.001 U	0.002 U	0.0005 J	0.01 U	0.01 U	0.004 U	0.0044 J	0.0636	0.014 U
HMW-28	10/16/2007	0.005 U	0.0019 J	0.003 U	0.0007 J	0.0927	0.0878	0.001 U	0.001 U	0.0013 J	0.001 U	0.01 U	0.01 U	0.0093 J	0.0058 U	0.133	0.02 U
HMW-29	10/16/2007	0.0026 J	0.0017 J	0.001 J	0.0016 J	0.114	0.109	0.001 U	0.001 U	0.002 U	0.0008 U	0.01 U	0.01 U	0.0047 J	0.0038 U	4.19	4.6
HMW-38C	10/16/2007	0.0023 J	0.003 J	0.0322	0.0288	0.254	0.254	0.001 U	0.001 U	0.0012 J	0.0009 U	0.01 U	0.0043 J	0.01 U	0.01 U	31.5	30.1
HMW-38C <sup>1</sup>	10/16/2007	0.0027 J	0.0024 J	0.0329	0.0307	0.291	0.255	0.001 U	0.001 U	0.0003 J	0.0013 U	0.01 U	0.01 U	0.0028 U	0.0028 U	32.3	29.7 S
HMW-39B	10/16/2007	0.0033 J	0.0023 J	0.0012 J	0.003 U	0.266	0.248	0.001 U	0.001 U	0.0007 J	0.0003 U	0.01 U	0.0041 J	0.0024 J	0.01 U	1.2	0.02 U
HMW-39C	10/15/2007	0.005 U	0.005 U	0.0009 J	0.003 U	0.486	0.446	0.001 U	0.001 U	0.002 U	0.0006 J	0.01 U	0.0047 J	0.0022 U	0.01 U	5.64	5.65
HMW-40C	10/10/2007	0.005 U	0.005 U	0.017	0.0067	0.46	0.406	0.001 U	0.001 U	0.002 U	0.0003 U	0.01 U	0.0041 J	0.0031 J	0.01 U	3.51	0.796
HMW-43C	10/11/2007	0.005 U	0.005 U	0.0236	0.0261	0.165	0.165	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.0046 J	0.0038 J	8	7.98	
HMW-44D	10/12/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.602	0.565	0.001 U	0.001 U	0.0012 U	0.0004 J	0.0042 J	0.01 U	0.0194	0.0183	11.6	9.82
HMW-44D <sup>1</sup>	10/12/2007	0.005 U	0.005 U	0.0009 J	0.003 U	0.575	0.576	0.001 U	0.001 U	0.0014 J	0.002 U	0.01 U	0.01 U	0.0206	0.0186	11.3	11.6
HMW-47C	10/17/2007	0.005 U	0.005 U	0.0088	0.0052	0.55	0.508	0.001 U	0.001 U	0.0007 U	0.002 U	0.01 U	0.0056 J	0.0046 J	0.0046 J	26.6	24.3 S
HMW-48D	10/17/2007	0.005 U	0.005 U	0.0008 J	0.003 U	0.38	0.374	0.001 U	0.001 U	0.002 U	0.0009 J	0.01 U	0.01 U	0.003 J	0.01 U	26.6	25.2
HMW-49C	10/18/2007	0.005 U	0.005 U	0.0049 J	0.0053	0.473	0.378	0.001 U	0.001 U	0.0036	0.0023 U	0.006 J	0.01 U	0.0022 J	0.0037 J	23 S	19.2 S
HMW-49D	10/16/2007	0.0024 J	0.0028 J	0.0008 J	0.0008 J	0.284	0.257	0.001 U	0.001 U	0.002 U	0.001 U	0.01 U	0.0042 J	0.01 U	0.0033 U	27.9	25
HMW-50A	10/11/2007	0.005 U	0.005 U	0.0014 J	0.002 J	0.0571	0.0476	0.001 U	0.001 U	0.002 U	0.002 U	0.0045 J	0.0049 J	0.01 U	0.0035 J	0.659	0.0075 J
HMW-50B	10/11/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.161	0.17	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.0046 J	0.01 U	0.01 U	3.09	3.17
HMW-50C	10/16/2007	0.0024 J	0.0036 J	0.003 U	0.003 U	0.266	0.242	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	3.15	1.92
HMW-52C	10/11/2007	0.005 U	0.005 U	0.0026 J	0.002 J	0.402	0.4	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.01 U	0.0033 J	18.9	17.2
HMW-53C	10/11/2007	0.005 U	0.005 U	0.003 U	0.001 J	0.333	0.338	0.001 U	0.001 U	0.0008 J	0.002 U	0.004 J	0.0091 J	0.01 U	0.01 U	4.53	4.6
HMW-54C	10/12/2007	0.005 U	0.005 U	0.0008 J	0.003 U	0.456	0.468	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	5.43 S	5.76
HMW-54C <sup>1</sup>	10/12/2007	0.005 U	0.005 U	0.003 U	0.0008 J	0.442	0.44	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	5.34	5.16
MP-59C	10/15/2007	0.0018 J	0.0022 J	0.0839	0.0859	0.622	0.6	0.001 U	0.001 U	0.0008 J	0.002 U	0.01 U	0.0055 J	0.0037 U	0.01 U	31.4	34.2
MP-78D	10/11/2007	0.005 U	0.005 U	0.0251	0.0293	0.277	0.267	0.001 U	0.001 U	0.0009 J	0.001 J	0.0046 J	0.01 U	0.01 U	0.01 U	27.2	26.2
MP-81C	10/11/2007	0.005 U	0.005 U	0.0011 J	0.003 U	0.0712	0.0732	0.001 U	0.001 U	0.002 U	0.002 U	0.0046 J	0.0057 J	0.0048 J	0.0041 J	0.0711	0.0454
MP-83C	10/11/2007	0.005 U	0.005 U	0.0017 J	0.0023 J	0.376	0.357	0.001 U	0.001 U	0.0004 J	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	16.8	15.8
MP-85D	10/11/2007	0.005 U	0.005 U	0.003 U	0.0007 J	0.456	0.48	0.001 U	0.001 U	0.0007 J	0.002 U	0.0042 J	0.01 U	0.01 U	0.01 U	26.8	27.7
MP-89C	10/10/2007	0.005 U	0.005 U	0.0012 J	0.001 J	0.0389	0.0387	0.001 U	0.001 U	0.001 U	0.0012 U	0.0055 J	0.0055 J	0.0219	0.0248	5.14	4.78
MP-92D	10/12/2007	0.005 U	0.005 U	0.0048	0.0025 J	0.168	0.174	0.001 U	0.001 U	0.0013 U	0.0007 J	0.01 U	0.01 U	0.01 U	0.003 J	5.21	5.41
MP-92D <sup>1</sup>	10/12/2007	0.005 U	0.005 U	0.0053	0.0052	0.168	0.172	0.001 U	0.001 U	0.0005 J	0.0005 J	0.01 U	0.01 U	0.0048 J	5.22	5.22	

**Table 8**  
**Summary of Groundwater Analytical Results - Metal (Total and Dissolved) - October 2007**

1190500002 -- Madison County -- ILD041889023  
 The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent													
		Lead	Lead (Dissolved)	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value	0.0075 mg/L	0.0075 mg/L	0.002 mg/L	0.002 mg/L	0.1 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.049 mg/L	0.049 mg/L	5 mg/L	5 mg/L	
HMW-25	10/15/2007	0.0005 U	0.002 U	0.0002 U	0.0002 U	0.0064 J	0.007 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0044 J	0.01 U	
HMW-26	10/15/2007	0.0007 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.0061 J	0.006 U	0.006 UJ	0.01 U	0.01 U	0.01 U	0.0029 J	0.01 U	
HMW-27	10/15/2007	0.0006 U	0.002 U	0.0002 U	0.0002 U	0.0165	0.0208	0.0044 J	0.006 U	0.01 U	0.01 U	0.01 U	0.0054 J	0.0035 J	
HMW-28	10/16/2007	0.002 U	0.0008 J	0.0002 U	0.0002 U	0.026	0.0279	0.0071	0.006 U	0.01 U	0.01 U	0.01 U	0.0036 J	0.0051 J	
HMW-29	10/16/2007	0.002 U	0.001 J	0.0002 U	0.0002 U	0.0075 U	0.0062 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 J	
HMW-38C	10/16/2007	0.0012 J	0.0018 J	0.0002 U	0.0002 U	0.0069 U	0.0085 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0068 J	0.005 J	0.0433	0.01 U
HMW-38C <sup>1</sup>	10/16/2007	0.0012 J	0.0018 J	0.0002 U	0.0002 U	0.0033 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0068 J	0.0046 J	0.026	0.0123
HMW-39B	10/16/2007	0.001 J	0.002 U	0.0002 U	0.0002 U	0.005 U	0.0038 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.046	0.0319
HMW-39C	10/15/2007	0.0008 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.0049 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.006 J	0.004 J	
HMW-40C	10/10/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0077 J	0.0054 J	0.0038 J	0.006 U	0.01 U	0.01 U	0.007 J	0.01 U	0.0151	0.009 J
HMW-43C	10/11/2007	0.0005 J	0.002 U	0.0002 U	0.0002 U	0.0101 U	0.009 J	0.006 U	0.006 U	0.01 U	0.0041 J	0.0039 J	0.01 U	0.0495	0.015 U
HMW-44D	10/12/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.005 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.008 U	0.0065 U	
HMW-44D <sup>1</sup>	10/12/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0043 J	0.01 U	0.006 U	0.006 U	0.01 U	0.0047 J	0.01 U	0.01 U	0.0089 J	0.0104
HMW-47C	10/17/2007	0.0146 J	0.01	0.0002 U	0.0002 U	0.0078 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0046 J	0.01 U	0.0282	0.0132
HMW-48D	10/17/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0051 J	0.01 U	0.0071 J	0.012
HMW-49C	10/18/2007	0.0214	0.015	0.0002 U	0.0002 U	0.0096 J	0.0059 J	0.006 U	0.006 U	0.01 U	0.0037 J	0.0174	0.01 U	0.733	0.227
HMW-49D	10/16/2007	0.0002 U	0.0009 J	0.0002 U	0.0002 U	0.0034 U	0.0033 J	0.006 U	0.006 U	0.01 U	0.0078 J	0.01 U	0.0083 J	0.01 U	
HMW-50A	10/11/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.006 U	0.01 U	0.006 U	0.006 U	0.01 U	0.0098 J	0.0068 J	0.0105 U	0.009 U	
HMW-50B	10/11/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0046 U	0.0034 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0069 U	0.0057 U	
HMW-50C	10/16/2007	0.002 U	0.0006 J	0.0002 U	0.0002 U	0.01 U	0.0052 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0115	0.01 U	0.0053 J	0.01 U
HMW-52C	10/11/2007	0.0026	0.002 U	0.0002 U	0.0002 U	0.0069 U	0.0037 J	0.006 U	0.006 U	0.0036 J	0.01 U	0.0084 J	0.0065 J	0.0633	0.0065 U
HMW-53C	10/11/2007	0.002 U	0.002 U	0.0002 U	-0.0002 U	0.01 U	0.0039 J	0.006 U	0.006 U	0.0032 J	0.01 U	0.004 J	0.01 U	0.0144 U	0.0099 U
HMW-54C	10/12/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.005 U	0.006 U	0.006 U	0.0043 U	0.01 U	0.01 U	0.01 U	0.0106 U	0.0102 U
HMW-54C <sup>1</sup>	10/12/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0049 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0071 J	0.0051 J	
MP-59C	10/15/2007	0.0386	0.0318	0.0002 U	0.0002 U	0.0055 J	0.0099 J	0.0042 J	0.006 U	0.01 U	0.01 U	0.01 U	0.0059 J	0.01 U	
MP-78D	10/11/2007	0.0041	0.0034	0.0002 U	0.0002 U	0.0041 U	0.01 U	0.0064	0.0037 J	0.01 U	0.01 U	0.0054 J	0.0053 J	0.0044 U	0.0051 U
MP-81C	10/11/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.023	0.0232	0.006 U	0.006 U	0.01 U	0.01 U	0.0048 J	0.01 U	0.0114 U	0.0115 U
MP-83C	10/11/2007	0.0014 J	0.0013 J	0.0002 U	0.0002 U	0.0041 U	0.0033 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0092 U	0.0048 U	
MP-85D	10/11/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0041 J	0.0057 J	0.013 U	0.0058 U
MP-89C	10/10/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0631	0.06	0.0347	0.0595	0.01 U	0.01 U	0.01 U	0.01 U	0.0171	0.013
MP-92D	10/12/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0034 U	0.0041 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0135 U	0.0119 U	
MP-92D <sup>1</sup>	10/12/2007	0.002 U	0.002 U	0.0002 U	0.0002 U	0.0037 J	0.0037 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.005 J	0.0052 J	

Notes

=Exceeds Screening Criteria

<sup>1</sup> = Denotes Duplicate Sample

U = Not Detected (value preceding "U" denotes detection limit)

J = Estimated value

S = Spike Recovery outside accepted recovery limits

All units are in ug/L-micrograms per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives, last amended February 15, 2007. Comparison values used for comparison purposes only.

**Table 9**  
**Summary of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters - October 2007**

1190500002 – Madison County – ILD041889023  
 The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO <sub>3</sub> )	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO <sub>3</sub> )	Nitrate	Nitrate plus Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids (TDS)	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value	(mg/L)	(mg/L)	(mg/L)	200 mg/L	0.2 mg/L	(mg/L)	10 mg/L	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	400 mg/L	(mg/L)	(mg/L)	(mg/L)	
HMW-25	10/15/2007	458	0.1 U	20 U	40	0.007 U	400	0.02 J	0.02 J	0.01 U	0.025	0.018 U	39	0.02 J	548	1.8	6 U
HMW-26	10/15/2007	600	0.26	93	69	0.007 U	760	0.02 J	0.02 J	0.01 U	0.314	0.293	252	0.34 J	1070	2.4	50
HMW-27	10/15/2007	624	0.1 U	20 U	4	0.007 U	640	0.36	0.36	0.01 U	0.074	0.057	90	0.02 J	790	3.7	6 U
HMW-28	10/16/2007	524	0.1 U	145	23	0.007 U	580	0.286	0.3	0.01	0.083	0.026	5 U	0.04 J	748	3.5	6 U
HMW-29	10/16/2007	504	0.04 J	20 U	26	0.007 U	620	0.01 J	0.01 J	0.01 U	0.1	0.052	182	0.04 J	810	1.6	11
HMW-38C	10/16/2007	668	0.24	25 J	53	0.007 U	620	0.02 J	0.02 J	0.01 U	0.366	0.34	1 J	0.1	732	5.9	51
HMW-38C <sup>1</sup>	10/16/2007	668	0.25	66 J	51	0.007 U	640	0.67 J	0.67 J	0.01 U	0.323	0.308	5 U	0.13	724	6.3	61
HMW-39B	10/16/2007	236	0.08 J	30	495	0.007 U	220	0.05	0.05	0.01 U	0.166	0.052	21	0.05	1040	1 U	12
HMW-39C	10/15/2007	234	0.33	26	227	0.007 U	340	0.02 J	0.02 J	0.01 U	0.263	0.226	17	0.16	656	0.7 J	14
HMW-40C	10/10/2007	340	0.1 U	20 U	15	0.007 U	320	0.35	0.35	0.01 U	0.089	0.08	18	0.03 J	386	0.8 U	10
HMW-43C	10/11/2007	436	0.21	12 J	23	0.007 U	500	0.11	0.11	0.01 U	0.134	0.112	76	0.06	654	2.4	15
HMW-44D	10/12/2007	590	0.19 U	14 J	27	0.007 U	540	0.02 U	0.02 U	0.01 U	0.306	0.306	28 J	0.09 U	660	6.3	18
HMW-44D <sup>1</sup>	10/12/2007	592	0.19	9 J	27	0.007 U	520	0.02 J	0.02 J	0.01 U	0.299	0.33	27	0.02 J	678	6.2	16
HMW-47C	10/17/2007	572	0.1 U	62	232	0.007 U	620	0.14	0.14	0.01 U	1.3 J	1.2	2 J	0.08	1020	6.5	135
HMW-48D	10/17/2007	452	0.22	39	71	0.007 U	460	0.97	0.97	0.01 U	0.46	0.471	2 J	0.03 J	576	9.2	48
HMW-49C	10/18/2007	502	0.2	64	7	0.007 U	440	0.03 J	0.03 J	0.01 U	0.681	0.539	3 J	0.14 J	508	11.1	435
HMW-49D	10/16/2007	486	0.15	20	44 J	0.007 U	460	0.05 U	0.01 J	0.02	0.577	0.572	3 J	0.05 J	546	5	62
HMW-50A	10/11/2007	504	0.1 U	20 U	16	0.007 U	760	1.19	1.19	0.01 U	0.198	0.184	246	0.07 J	1110	2	33
HMW-50B	10/11/2007	244	1.28	20 U	37	0.007 U	440	0.02 J	0.02 J	0.01 U	0.884	0.762	225	0.16	810	2.6	14
HMW-50C	10/16/2007	584	0.58	32	374	0.007 U	740	0.03 J	0.03 J	0.01 U	0.731	0.717	5 US	4 E	1290	1.5	12
HMW-52C	10/11/2007	608	0.16	22	36	0.397	680	0.02 J	0.02 J	0.01 U	0.236	0.179	87	0.12 J	868	2.7	104
HMW-53C	10/11/2007	520	0.18	9 J	20	0.007 U	480	0.02 J	0.02 J	0.01 U	0.319	0.303	13	0.13	606	3.8	9
HMW-54C	10/12/2007	542	0.17 U	20 U	26	0.007 U	520	0.01 U	0.01 U	0.01 U	0.244 U	0.19 U	26	0.15	624	3.1 U	26
HMW-54C <sup>1</sup>	10/12/2007	544	0.17	41	24	0.007 U	500	0.04 J	0.04 J	0.01 U	0.273	0.269	27	0.12	640	3	20
MP-59C	10/15/2007	674	0.16	207		0.007 U	640	0.02 J	0.02 J	0.01 U	0.484	0.381	2 J	0.03 J	790	26.9	80
MP-78D	10/11/2007	674	0.1 U	162	15	0.007 U	600	0.01 J	0.01 J	0.01 U	0.368	0.366	5 U	0.18	720	19.6	52
MP-81C	10/11/2007	616	0.09 J	22	27	0.007 U	660	0.54	0.54	0.01 U	0.046	0.033	109	0.18	910	2.6	6 U
MP-83C	10/11/2007	464	0.06 J	125	50	0.007 U	420	0.02 J	0.02 J	0.01 U	0.224	0.186	5 U	0.17	564	9.6	30
MP-85D	10/11/2007	508	0.19 J	68	55 J	0.007 U	460	0.08	0.08	0.01 U	0.468	0.413	5 UJ	0.09	596	7.3	52
MP-89C	10/10/2007	392	0.11	20 U	5 J	0.007 U	700	0.87	0.87	0.01 U	0.086	0.071	433	0.05 U	1070	1.4 U	11
MP-92D	10/12/2007	582	0.1 U	29	33	0.007 U	560	0.01 U	0.01 U	0.01 U	0.065 U	0.065 U	52	0.02 U	722	2.1 U	13
MP-92D <sup>1</sup>	10/12/2007	580	0.1 U	20 U	34	0.007 U	540	0.01 J	0.01 J	0.01 U	0.072	0.056	52	0.03 J	708	1.9	15

Notes

=Exceeds Screening Criteria

<sup>1</sup> = Denotes Duplicate Sample

U = Not Detected (value preceding "U" denotes detection limit)

J = Estimated value

E = Result exceeded instrument calibration range. Due to insufficient sample volume, a dilution was not performed. Actual result is greater than reported result.

S = Spike Recovery outside accepted recovery limits

All units are in mg/L-milligrams per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives, last amended February 15, 2007. Comparison values used for comparison purposes only.

**TABLE 10**  
**INDICATOR PARAMETERS - JULY 2007 QUARTERLY SAMPLING**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well Number	Date	Temperature °C	pH (std. units)	Conductivity (µS/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	ORP (mV)
<b>FOURTH QUARTER 2007</b>							
HMW-25	10/15/07	16.82	6.79	1759.52	35.37	1.72	135.37
HMW-26	10/15/07	18.22	6.65	3115.72	9.79	1.63	-88.78
HMW-27	10/15/07	18.35	6.59	2351.00	19.67	1.42	104.00
HMW-28	10/16/07	17.11	6.57	1026.44	62.15	0.70	84.33
HMW-29	10/16/07	16.81	6.62	1070.08	18.02	0.79	-10.92
HMW-38C	10/16/07	19.19	6.27	1217.76	27.02	0.70	-69.83
HMW-39B							
HMW-39C	10/15/07	15.27	7.01	1664.50	18.06	1.10	-101.49
HMW-40C	10/10/07	15.71	6.51	596.71	50.52	0.62	77.75
HMW-43C	10/11/07	16.64	6.62	903.14	65.04	0.95	-43.29
HMW-44D	10/12/07	16.97	6.08	1051.63	508.19	0.83	-48.04
HMW-47C	10/17/07	16.20	6.23	1477.00	55.29	0.98	-59.00
HMW-48D	10/17/07	17.14	6.66	916.40	46.29	1.00	-109.00
HMW-49C							
HMW-49D	10/16/07	18.70	6.49	917.73	90.66	0.83	-97.50
HMW-50A	10/11/07	15.20	6.63	1252.48	41.58	0.64	231.21
HMW-50B	10/11/07	16.45	6.97	880.35	13.90	0.73	-88.80
HMW-50C	10/16/07	15.41	6.23	1808.35	53.09	0.82	-181.01
HMW-52C	10/11/07	16.86	6.60	1202.00	122.80	0.72	-73.00
HMW-53C	10/11/07	17.82	6.07	896.69	360.88	1.71	-32.33
HMW-54C	10/12/07	17.54	6.77	945.79	68.93	2.38	-87.33
MP-59C	10/15/07	18.30	6.32	2196.51	12.84	1.07	-46.42
MP-78D	10/11/07	17.50	6.42	1084.62	19.56	2.85	-69.55

**TABLE 10**  
**INDICATOR PARAMETERS - JULY 2007 QUARTERLY SAMPLING**  
*The Hartford Area Hydrocarbon Plume Site*

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well Number	Date	Temperature °C	pH (std. units)	Conductivity (uS/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	ORP (mV)
<b>FOURTH QUARTER 2007</b>							
MP-81C	10/11/07	15.86	6.23	1175.58	13.44	0.73	-9.25
MP-83C	10/11/07	18.99	6.62	900.58	29.67	3.05	-77.25
MP-85D	10/11/07	17.74	6.70	984.50	304.40	2.01	-105.00
MP-89C	10/10/07	17.17	6.69	1235.04	18.55	1.89	-1.02
MP-92D	10/12/07	16.10	6.70	1043.74	9.98	0.78	-45.01

**NOTES:**

Highlighted wells were purged dry and sampled with a peristaltic pump and/or 2" bailer. No indicator parameters were collected.

°C = degrees Centigrade

mg/L = milligrams per liter

mV = millivolts

NM = Not Measured

ntu = nephelometric turbidity units

uS/cm = microsiemens per centimeter

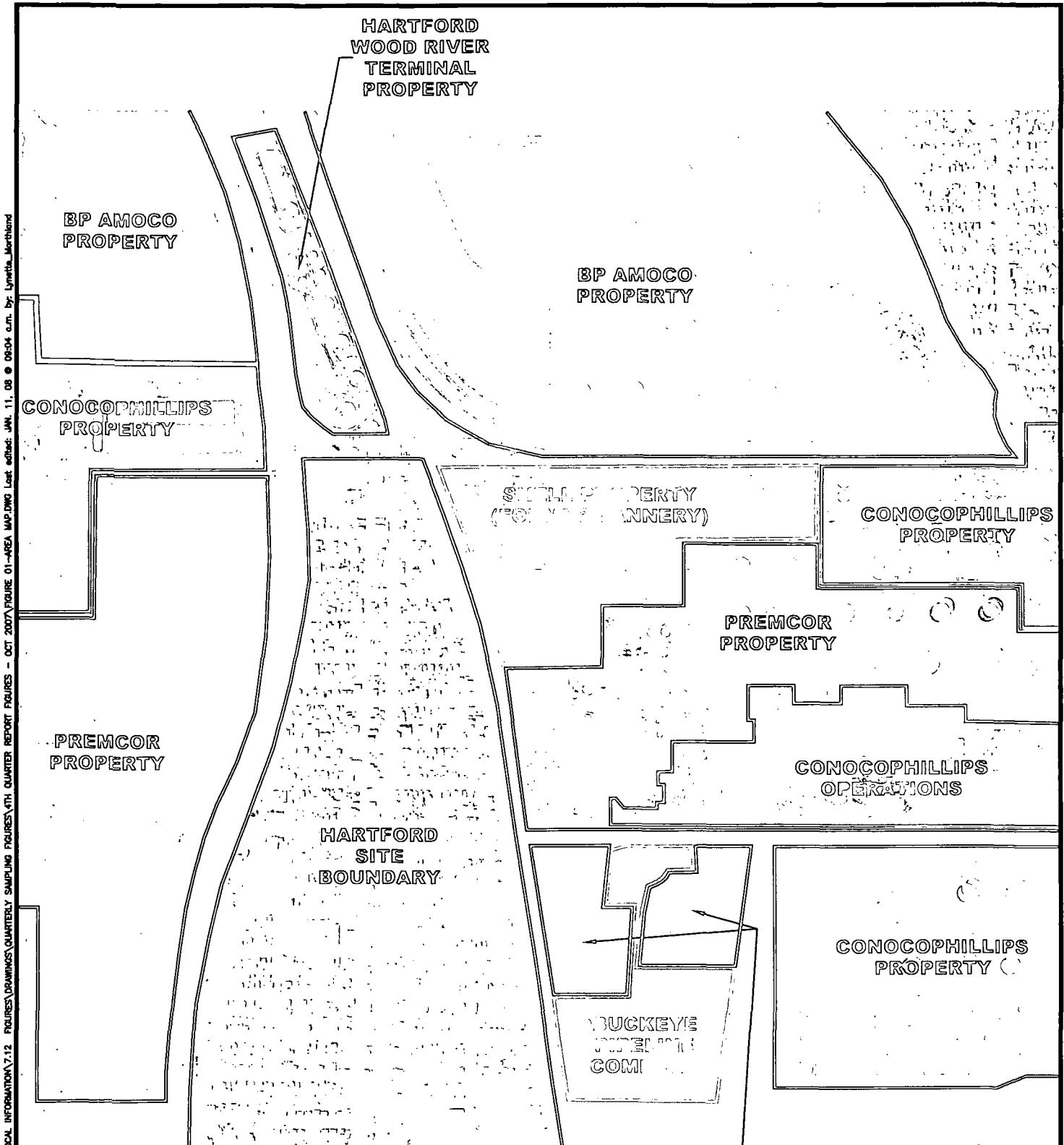


**Quarterly Groundwater Monitoring Report (October 2007)**  
**The Hartford Working Group / Hartford, IL**

**Figures**

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\*\*NOT TO SCALE\*\*

NOTE:

MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HARTFORD WORKING GROUP PLUME SITE  
HARTFORD, ILLINOIS

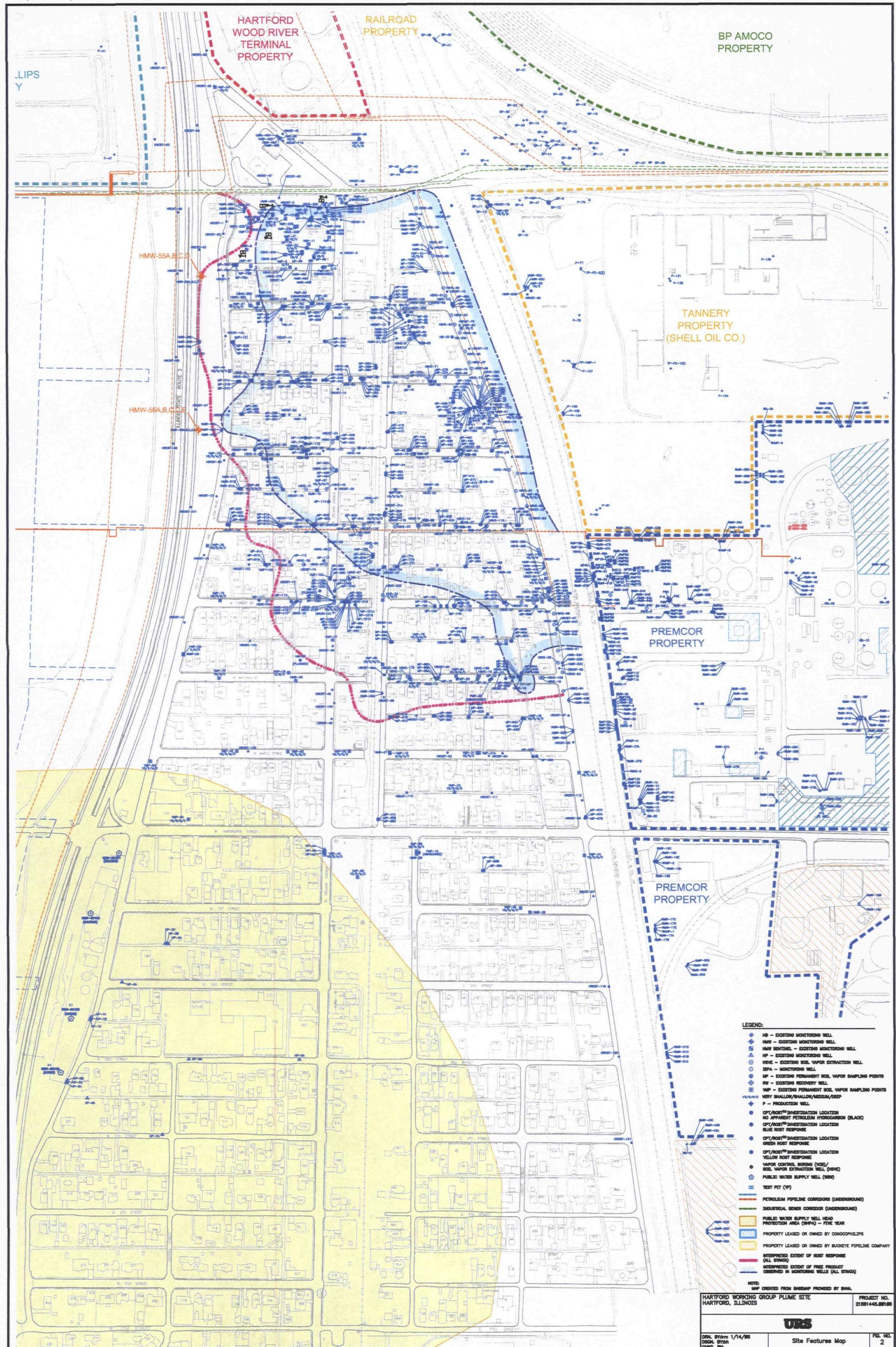
PROJECT NO.  
21561445.00106

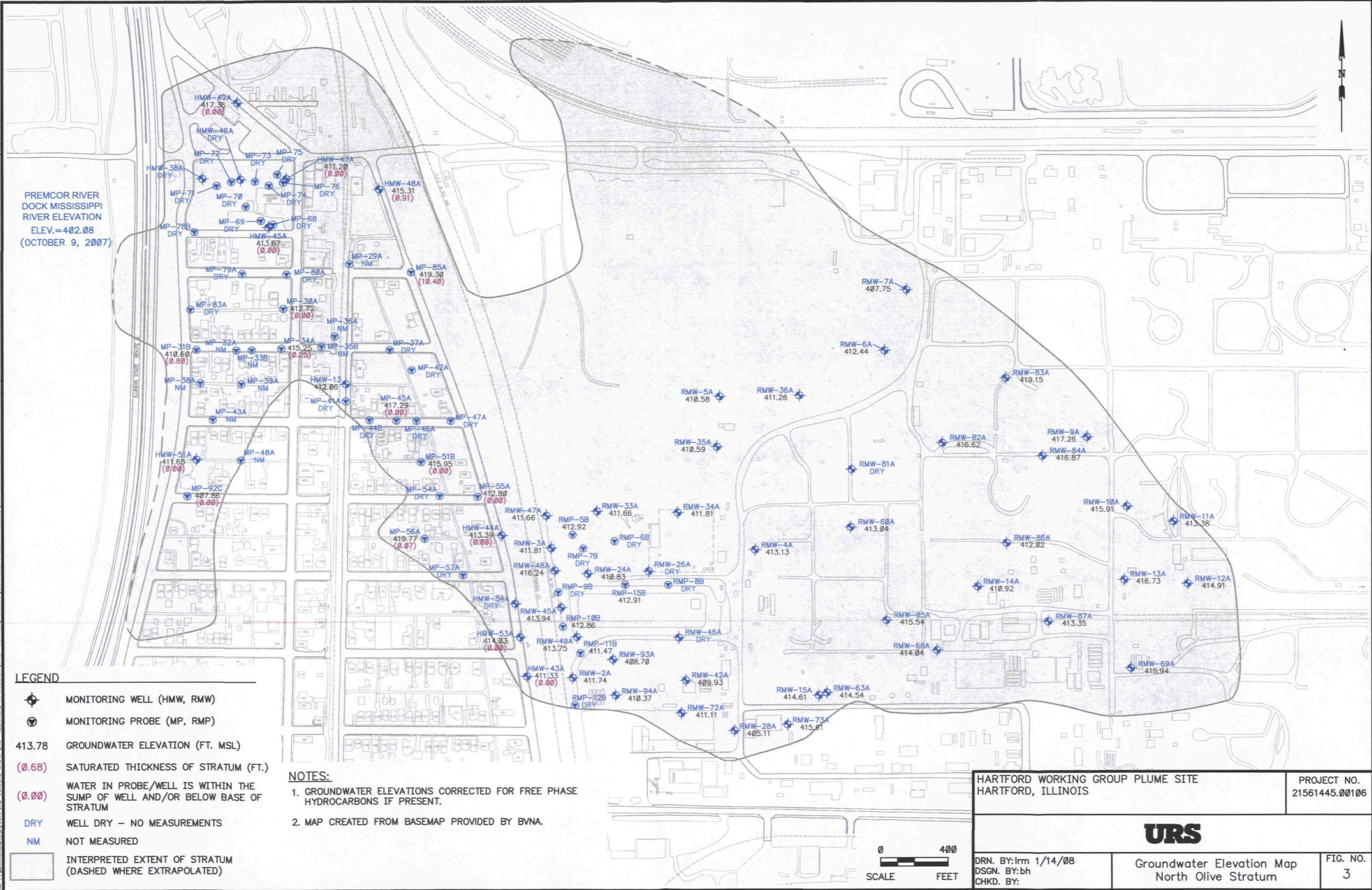
**URS**

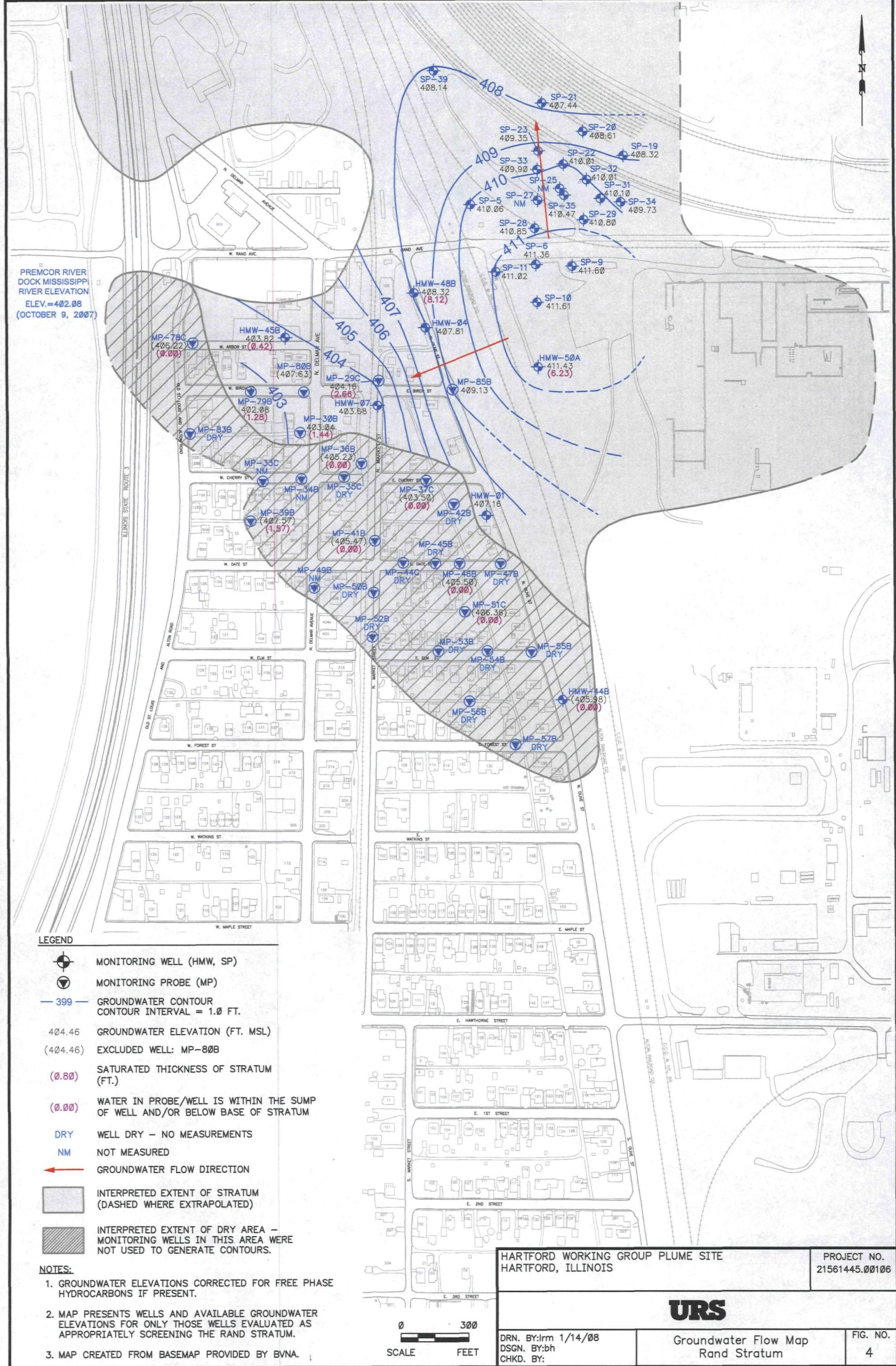
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DSGN. BY:bh  
CHKD. BY:

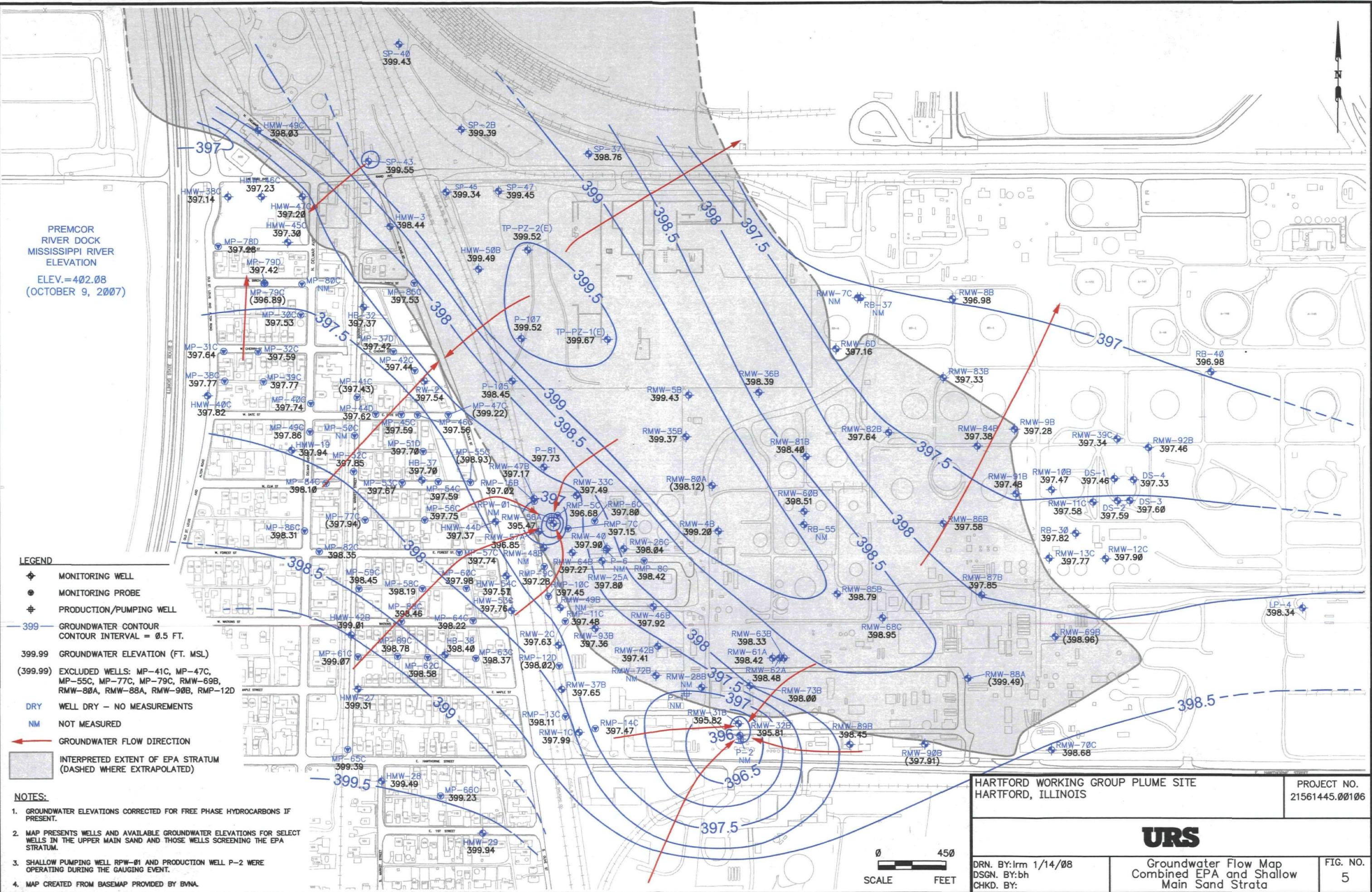
VILLAGE OF HARTFORD, IL AND  
SURROUNDING AREA MAP

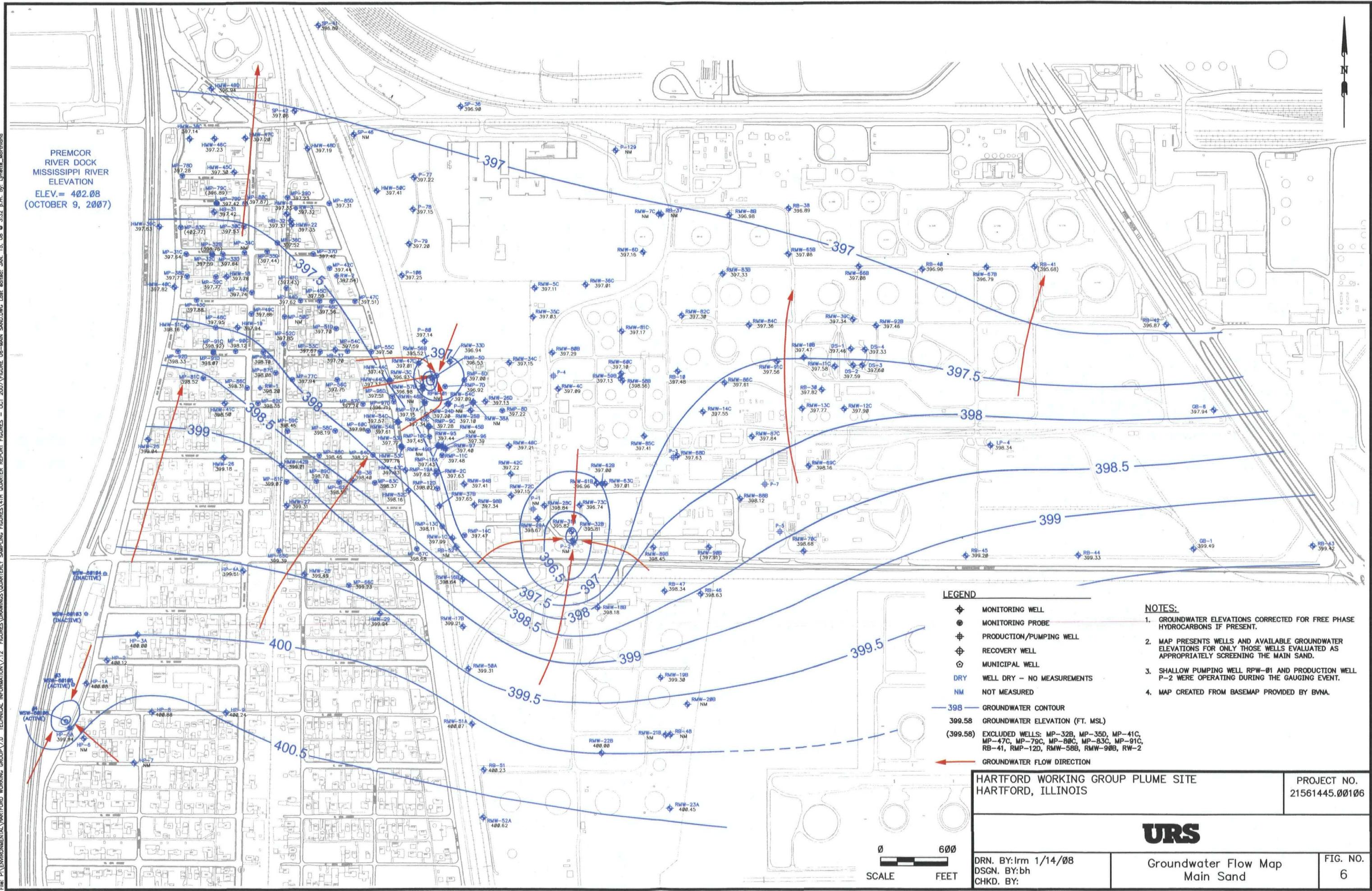
FIG. NO.  
1

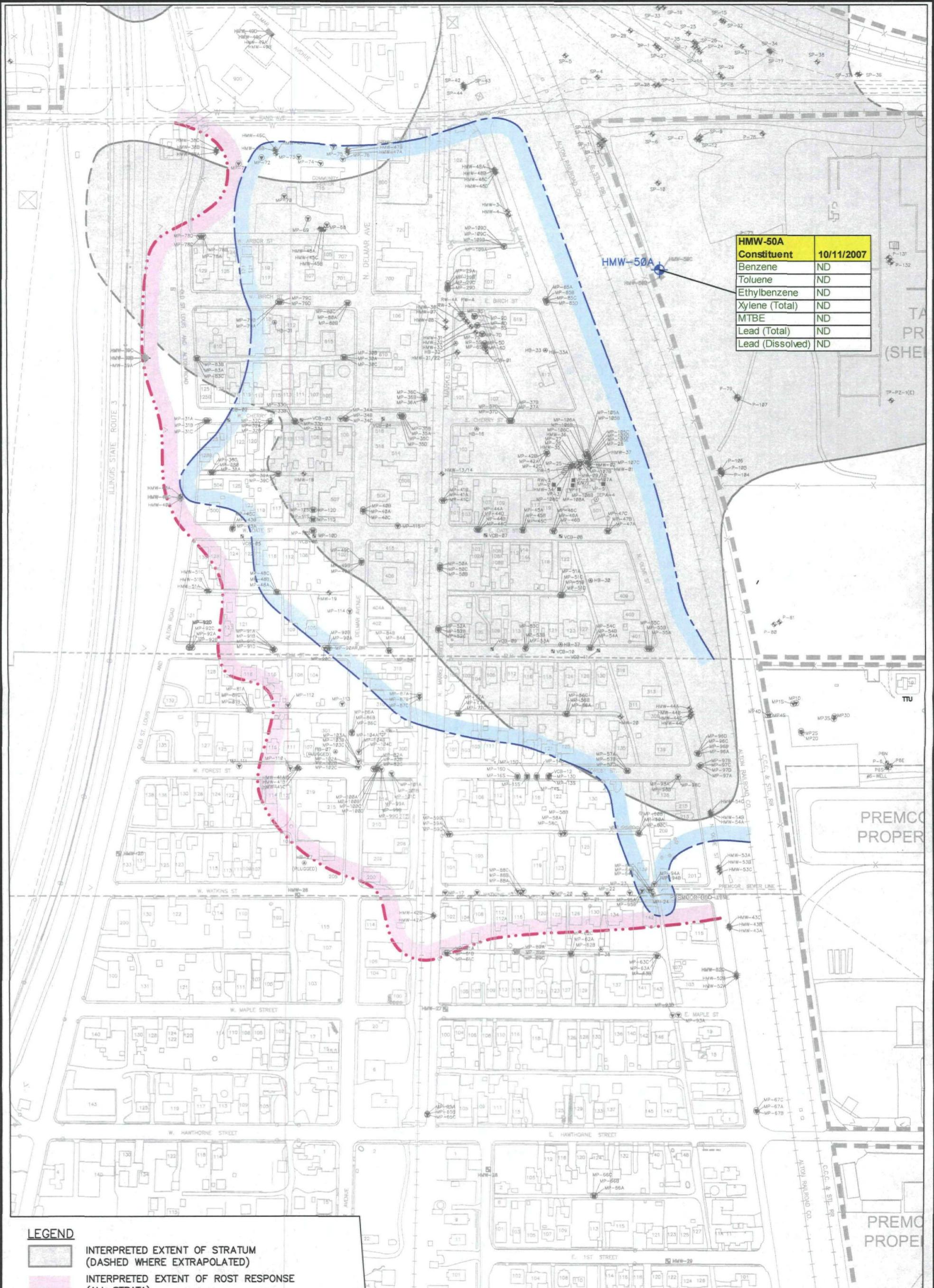












**NOTE:**

- RESULTS FOR ALL CONSTITUENTS IN ug/L.
- MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200  
SCALE FEET

HARTFORD WORKING GROUP PLUME SITE  
HARTFORD, ILLINOIS

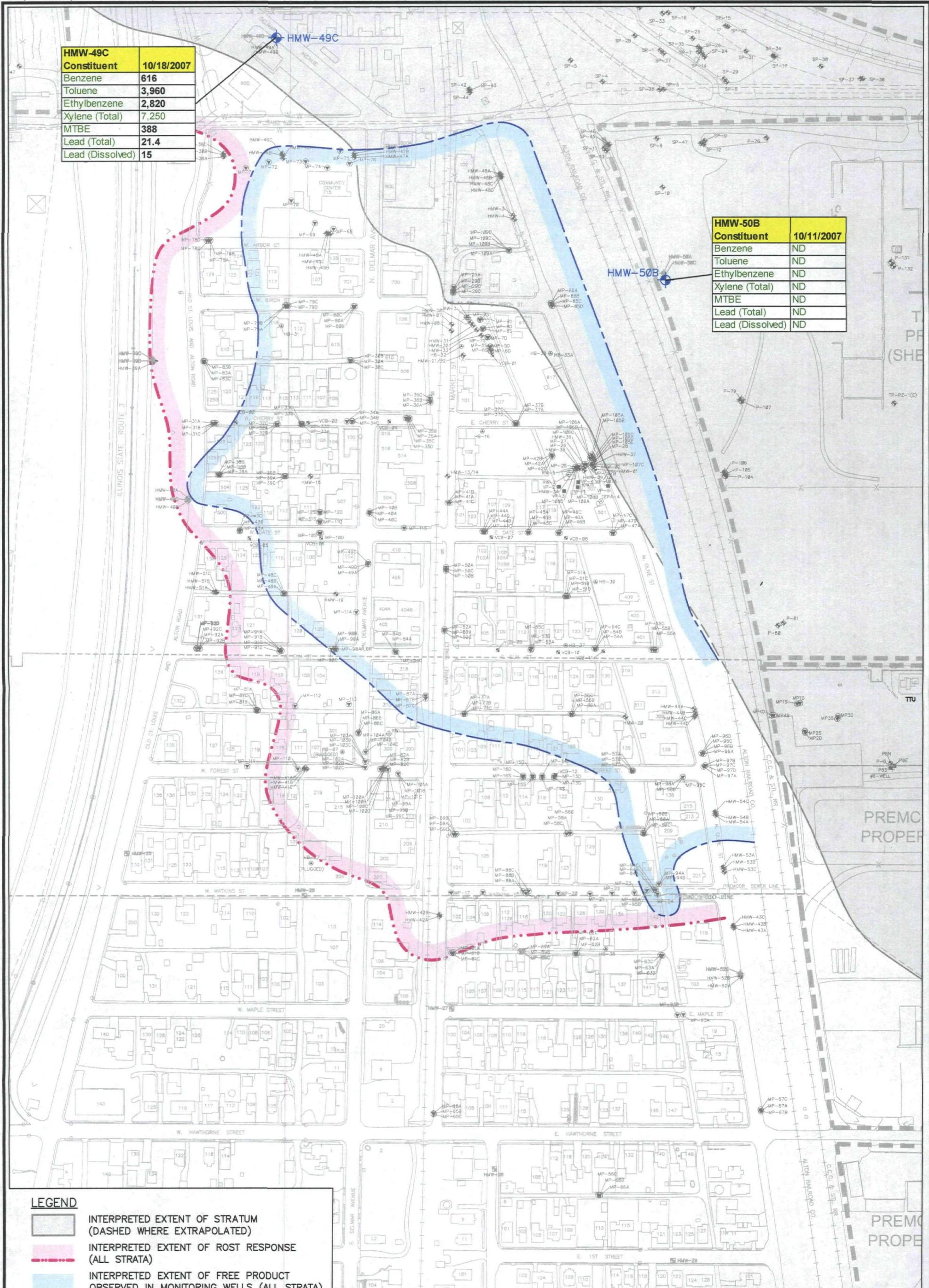
PROJECT NO.  
21561445.00106

**URS**

DRN. BY:irm 1/14/08  
DSGN. BY:bh  
CHKD. BY:

Groundwater Analytical Results  
Rand Stratum

FIG. NO.  
7



**NOTE:**

1. CONCENTRATIONS IN BLACK INDICATE THE RESULT EXCEEDS RESPECTIVE TACO CLASS I COMPARISON VALUES.
2. RESULTS FOR ALL CONSTITUENTS IN ug/L.
3. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200  
SCALE FEET

HARTFORD WORKING GROUP PLUME SITE  
HARTFORD, ILLINOIS

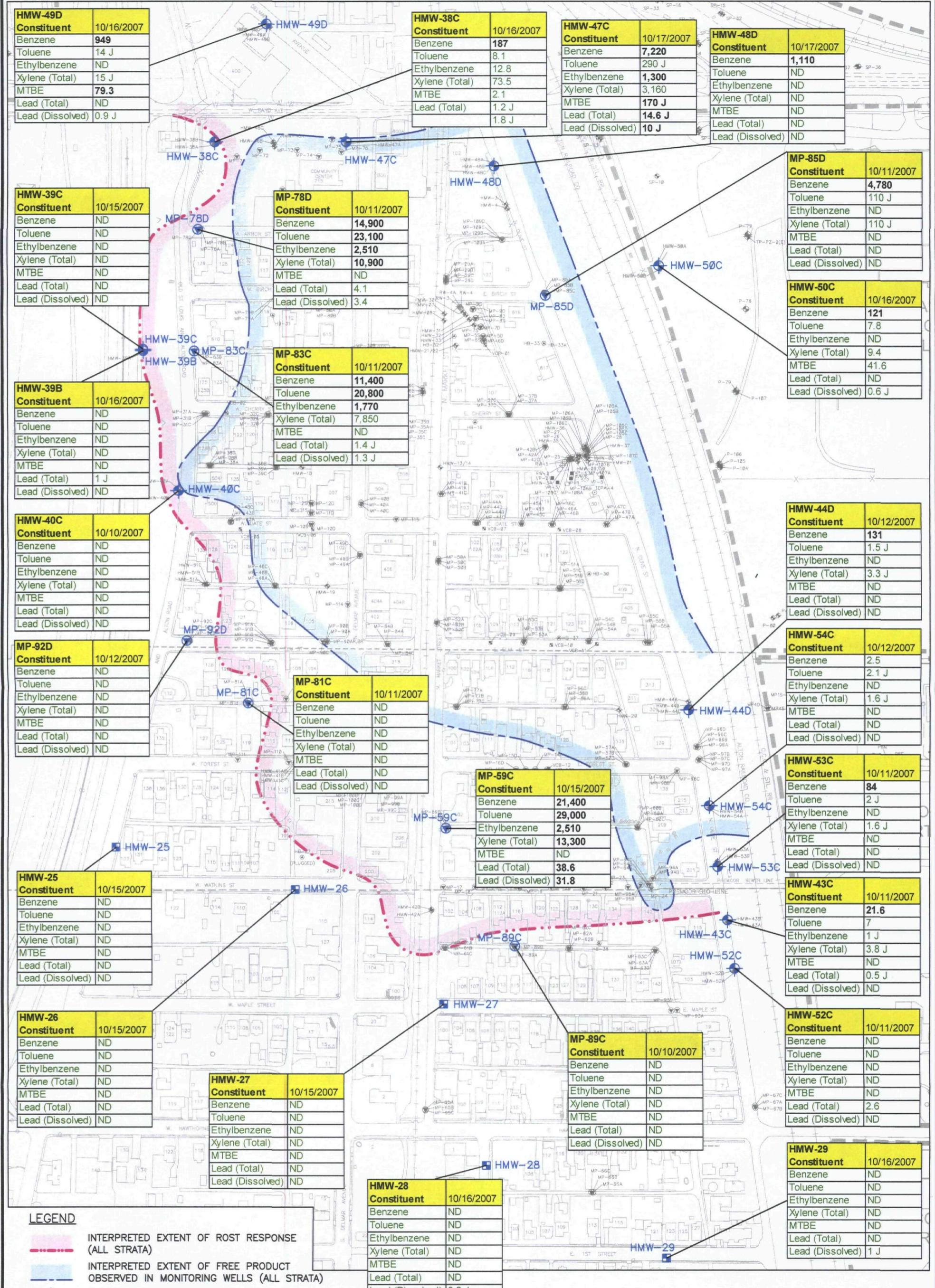
PROJECT NO.  
21561445.00106

**URS**

DRN. BY:irm 1/14/08  
DSGN. BY:bh  
CHKD. BY:

Groundwater Analytical Results  
EPA Stratum

FIG. NO.  
8



HARTFORD WORKING GROUP PLUME SITE  
HARTFORD, ILLINOIS

PROJECT NO.  
21561445.00106



DRN. BY:irm 1/14/08  
DSGN. BY:bh  
CHKD. BY:

Groundwater Analytical Results  
Main Sand Stratum

FIG. NO.  
9

NOTE:

- CONCENTRATIONS IN BLACK INDICATE THE RESULT EXCEEDS RESPECTIVE TACO CLASS I COMPARISON VALUES.
- RESULTS FOR ALL CONSTITUENTS IN ug/L.
- MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

0 200  
SCALE FEET

## **Appendix A**

Quarterly Groundwater Monitoring Report (October 2007)  
The Hartford Working Group / Hartford, IL

**APPENDIXA**

**Monitoring Well Inspection Report**



**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

1190505040 – Madison County – ILR000128249  
The Hartford Working Group / Hartford, IL

Well#	Dates	Field Staff		Well Casing		Security		Protective Cover		Flush Mount		Concrete Pad		Surface Drainage		Accessibility					
		Field Staff 1	Field Staff 2	Diameter (inches)	Material	Well Cap Problem	Well Cap Missing	Well Cap Damage	Cover	Cover Note	Flush Mount	Bolt Problem	Flush Mount Damaged	Slope	Flush Mount Sited	Pad Note	Pad Cracked	Surface Drainage Problem	Standing Water	Surface Drainage Note	Accessable
HB-16	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	Yes		Yes	No	No	No	No	No	No	No	No	Yes	
HB-30	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes	No	No	Yes		No	No	No	No	No	No	No	No	No	Yes	
HB-31	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HB-32	10/9/2007	Keck, Rodney (TDH)		4	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HB-33	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HB-37	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes	No	No	No		No	No	No	No	No	No	No	No	No	Yes	
HB-38	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No		No	No	No	No	No	No	No	No	No	Yes	
HMW-01	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		Yes	No	No	No	No	Well lid cover does not sit flush.	Yes	No	No	Yes	
HMW-02	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		Yes	No	No	Yes	No	Well lid is broken.	Yes	No	No	Yes	
HMW-03	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-04	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-07	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-08	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-09	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		No	Yes	No	No	No	Unable to secure lid. Riser sticks up too far.	Yes	No	No	Yes	
HMW-10	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		No	Yes	No	No	No	Unable to secure lid. Riser sticks up too far.	Yes	No	No	Yes	
HMW-13	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No		No	Yes	No	Yes	No	No	Yes	No	No	Yes	
HMW-14	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No		No	Yes	No	Yes	No	No	Yes	No	No	Yes	
HMW-18	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No	No	No	No		No	No	No	No	No	No	No	No	No	Yes	
HMW-19	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No	No	No	No		No	No	No	No	No	No	No	No	No	Yes	
HMW-20	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No	No	No	No		No	Yes	No	Yes	No	No	Yes	No	No	Yes	
HMW-21	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-22	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-25	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No		No	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-26	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	One bolt missing	Yes	No	No	Yes	
HMW-27	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes	No	No	No		No	Yes	No	Yes	No	Yes	No	No	No	Yes	
HMW-28	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No		No	Yes	No	No	No	No	Yes	No	No	Yes	
HMW-29	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	Yes		Yes	No	No	Yes	No	No	Yes	No	No	Yes	
HMW-30	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-31	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-32	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-33	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-34	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		No	Yes	Yes	No	No	No	Yes	No	No	Yes	
HMW-35	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	
HMW-36	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		No	Yes	No	No	No	Yes	Yes	No	No	Yes	
HMW-37	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No	No		No	Yes	Yes	No	No	Yes	No	No	No	Yes	
HMW-38A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-38B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-38C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-39A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-39B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-39C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	Yes		Yes	No	No	No	No	Yes	No	No	No	Yes	
HMW-40A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No	No		No	Yes	Yes	No	No	No	No	No	No	Yes	
HMW-40B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No	No		No	Yes	No	No	No	No	No	No	No	Yes	
HMW-40C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No	No	No	No		No	No	No	No	No	No	No	No	No	Yes	
HMW-41A	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No		No	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-41B	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No		No	Yes	No	No	No	Yes	No	No	No	Yes	
HMW-41C	10/9/2007	DeCioccio, Christoph		2	PVC	Yes	No	No	No		No	Yes	Yes	No	No	No	Yes	No	No	Yes	
HMW-42A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes	No	No	No		No	Yes									

**Appendix A**  
**October 2007 Well Integrity Survey**  
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1190505040 – Madison County – ILR000128249  
The Hartford Working Group / Hartford, IL

Well	Survey Dates	Field Staff		Well Casing		Security		Protective Cover		Flush Mount		Concrete Pad		Surface Drainage		Accessibility			
		Field Staff 1	Field Staff 2	Diameter (inches)	Material	Problem w/ Lock	Well Cap Missing	Well Cap Damage	Cover Note	Cover Note	Flush Mount Problem	Flush Mount Damaged	Flush Mount Seal	Flush Mount Note	Pad Note	Pad Cracked	Surface Drainage Problem	Surface Water	Surface Drainage Notes
HMW-43C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	Yes	No	No	No	No	Yes	No	No	No	Yes
HMW-44A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes	No	No	No	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-44B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-44C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No	No	Yes
HMW-44D	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-45A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-45B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-45C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-46A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-46B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-46C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-47A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	pad is floating	No	Yes
HMW-47B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-47C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-48A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes
HMW-48B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes
HMW-48C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes
HMW-48D	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes
HMW-49A	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-49B	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-49C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-49D	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No	No	Yes	Yes	No	No	No	Yes	No	No	No	Yes
HMW-51A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes
HMW-51B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No	No	No	No	No	Yes	No	No	No	No	No	No	No	Yes
HMW-51C	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	2	PVC	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	Yes
HMW-52A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
HMW-52B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
HMW-52C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes
HMW-53A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-53B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	4	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-53C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-54A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-54B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	4	PVC	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HMW-54C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	No	No	No	No	No	Yes	No	Yes	No	Yes	No	No	No	Yes
HP-01A	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	No	Yes	No	No	No	No	No	No	No	Yes
HP-01B	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	No	No	One bolt missing	No	No	No	Yes
HP-01C	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
HP-02	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
HP-03A	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
HP-03B	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
HP-03C	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	Yes
HP-04A	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-04B	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-04C	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-05A	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-05B	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-05C	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-06	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Covered by Debris
HP-07	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Covered by Debris
HP-08	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	Yes
HP-09	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No	No	Yes	Yes								

**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

**1190505040 – Madison County – ILR000128249**  
**The Hartford Working Group / Hartford, IL**

Well#	Date	Field Staff		Well/Casing		Security		Protective Cover		Flush Mount		Concrete Pad		Surface Drainage		Accessibility							
		Field Staff 1	Field Staff 2	Diameter (inches)	Material	Open/Covered	Well Casing Visiting	Well Cap Damaged	Cover	Cover Note	No Flush Mount (Bottom Problem)	FUSH Mount Ears Damaged	FUSH Mount Support	No FUSH Mounting Damaged	Flush Mount Seal Problem	Flush Mount Seal Note	Pad	Pad Note	Surface Drainage Problem	Surface Drainage Standing Water	Surface Drainage Notes	Accessories	Reason Inaccessible
MP-05S	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Covered by Debris	
MP-06D	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Covered by Debris	
MP-06S	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Covered by Debris	
MP-07D	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Covered by Trailer	
MP-07S	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Covered by Trailer	
MP-08D	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-08S	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-09D	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-09S	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-100A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Could Not Locate	
MP-100B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Could Not Locate	
MP-100C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Could Not Locate	
MP-100D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Could Not Locate	
MP-101A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
MP-101B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
MP-101C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
MP-102A	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	
MP-102B	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	
MP-102C	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	Yes	Yes	
MP-103A	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
MP-103B	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-103C	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-104A	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	No	Yes	
MP-104B	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	No	Yes	
MP-104C	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	Yes	No	Yes	
MP-105A	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Well vault is not flush with ground. Washout to the NE				No	No	Yes	
MP-105B	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Well vault not flush with the ground.				No	No	No	Yes
MP-105C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Riser above ground surface. Unable to close lid.				No	No	No	Yes
MP-105D	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
MP-105E	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	
MP-106A	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-106B	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-106C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-107A	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-107B	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-107C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-108A	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-108B	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-108C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-109D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-10S	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-11D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-11S	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-12D	10/10/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-12S	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	
MP-13D	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No	Well lid loose.				No	Yes	Yes	No	No	No	No	Yes	No	No	Yes
MP-13S	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No	Well lid loose.				No	Yes	No	Yes	No	No	Yes	No	No	Yes	
MP-14D	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No	Well lid loose.				No	Yes	No	Yes	No	No	Yes	No	No	Yes	
MP-14S	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	No	No	No	Well lid loose.				No	Yes	No	Yes	No	No	Yes	No	No	Yes	
MP-15D	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	Sediment piled inside of casing	Yes	

**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

1190505040 – Madison County – ILR000128249  
The Hartford Working Group / Hartford, IL

Well	Dates	Field Staff 1	Field Staff 2	Well Casing	Security	Protective Cover	Flush Mount	Concrete Pad	Surface Drainage	Accessibility							
		Field Staff 1 Notes	Field Staff 2 Notes	Diameter (Inches)	Material	Equity W/Lock	Well Cap Missing	Vertical Damaged	Surface Notes	Cover Note	Flush Mount Note	Flush Mount Problem	Flush Mount Note	Pad Note	Surface Drainage Note	Surface Drainage Note	Access Notes
MP-15S	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-16D	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-16S	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-25	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	No	No	No	Yes	No	Yes
MP-26	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	No	No	No	No	No	Yes
MP-27	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	No	No	No	No	No	Yes
MP-28	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-29A	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-29B	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-29C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-29D	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-30A	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-30B	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-30C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-31A	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-31B	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-31C	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	2	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-32A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		Yes	Yes	No	Yes	No	Yes	No	Yes
MP-32B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		Yes	Yes	No	No	Yes	No	No	Yes
MP-32C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		Yes	Yes	No	No	Yes	No	No	Yes
MP-33A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	No	No	No	No	No	No	Yes
MP-33B	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-33C	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-33D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-34A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-34B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	No	Yes
MP-34C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		Yes	Yes	No	No	No	Yes	No	Yes
MP-35A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	Yes	No	No	No	No	No
MP-35B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	Yes	No	No	No	No	Yes
MP-35C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-35D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		No	No	No	No	No	No	No	Yes
MP-36A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	Yes	No	No	No	No	Yes
MP-36B	10/9/2007	Reeker, Frederick A	Farquhar, Brandon	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-36C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No	No	No		No	Yes	No	No	No	No	No	Yes
MP-37A	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	Yes	Yes	No	Yes	No	Yes
MP-37B	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	Yes	No	No	No	No	Yes
MP-37C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No		No	Yes	No	No	No	No	No	Yes
MP-37D	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No		No	Yes	No	No	Yes	No	No	Yes
MP-38A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	No	No	No	No	No	No	Yes
MP-38B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	No	No	No	No	No	No	Yes
MP-38C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-39A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-39B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-39C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-40A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-40B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes	No	No		No	Yes	No	No	No	No	No	Yes
MP-40C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-41A	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-41B	10/9/2007	DeCioccio, Christoph		1	PVC	Yes	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-41C	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No		No	Yes	No	Yes	No	No	No	Yes
MP-42A	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	No	No	No	Yes	No	Yes
MP-42B	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	1	PVC	No	No	No		No	Yes	No	No	No	No	No	Yes
MP-42C	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	2	PVC	No	No	No		No	Yes	No	No	No	No	No	Yes

**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

1190505040 -- Madison County – ILR000128249  
The Hartford Working Group / Hartford, IL

Well	Dates	Field Staff 1	Field Staff 2	Well Casing Diameter (inches)	Material	Security Note	Protective Cover	Cover No.	Flush Mount	Flush Mount Bolt Problem	Flush Mount Earls Stopper Problem	Flush Mount Ring Damaged	Flush Mount Seal Problem	Flush Mount Sea Problem	Flush Mount No.	Pad No.	Pad No.	Surface Drainage Problem	Standing Water	Surface Drainage Note	Accessories	Reason Inaccessible
MP-43A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-43B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-43C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes No No	No	Yes	No	No No	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-44A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	Yes	No	Yes	No	Yes	No	Yes
MP-44B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-44C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-44D	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	Yes	No	Yes	No	Yes	No	Yes
MP-45A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-45B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-45C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No No No	No	Yes	Yes	No Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-46A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-46B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-46C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No No No	No	Yes	Yes	No Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-47A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-47B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-47C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes No No	No	Yes	Yes	No Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-48A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No No No	Yes	Yes	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Mobile ICE Unit Present
MP-48B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No No No	Yes	Yes	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Mobile ICE Unit Present
MP-48C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes No No	No	Yes	Yes	No No	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-49A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-49B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	Yes	No	No Yes	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-49C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes No No	No	Yes	Yes	No No	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-50A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No No	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-50B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No No	No	No	No	No	No	No	No	No	No	No	No	Yes
MP-50C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No No No	No	Yes	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-51A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	No	No	Yes	No	No	No	Yes
MP-51B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	No	No	Yes	No	No	No	Yes
MP-51C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	No	Yes	No	No	No	No	Yes
MP-51D	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	No	Yes	No	No	No	No	Yes
MP-52A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No No	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-52B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	Yes	Yes	No No	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-52C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes No No	No	Yes	Yes	No No	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-53A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-53B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-53C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No No No	No	Yes	Yes	No No	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-54A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-54B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	No No	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-54C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes No No	No	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-55A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-55B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-55C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No No No	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-56A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-56B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-56C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	No No No	No	No	Yes	Yes	No	No	No	Yes	No	Yes	No	No	No	No	No	Yes
MP-57A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	No	No	Yes	No	No	No	No	No	Yes
MP-57B	10/10/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	No	Yes	Yes	No	No	No	No</								

**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

1190505040 -- Madison County – ILR000128249  
The Hartford Working Group / Hartford, IL

Well	Dates	Field Staff		Well Casing		Security			Protective Cover		Flush Mount		Concrete Pad		Surface Drainage		Accessibility					
		Field Staff 1	Field Staff 2	Diameter (inches)	Material	Problem / Lock	Well Cap Missing	Well Cap Damaged	Security Note	Cover	Cover Note	Flush Mount	Flush Mount Lid Problem	Flush Mount Ring Damaged	Flush Mount Seal Problem	Flush Mount Seal	Pad	Pad Note	Pad Cracked	Pad Drainage Problem	Draining Water	Surface Drainage Note
MP-60A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	No	Yes	No	No	No	No	Yes
MP-60B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	No	Yes	No	No	No	No	Yes
MP-60C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	No	No	No		No	Yes	No	No	Yes	No	No	Yes	No	No	No	No	Yes
MP-61A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes
MP-61B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No	Flush mount lid not on when we arrived at well.	No	Yes	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes
MP-61C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No		No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
MP-62A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-62B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-62C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-63A	10/9/2007	Reeker, Frederick A	Wolfe, Shan M	1	PVC	No	No	No		No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
MP-63B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		Yes	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
MP-63C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No		No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes
MP-64A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-64B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-64C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes	No	No		No	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No	Yes
MP-65A	10/9/2007	Wolfe, Shan M	Mumper, Jennifer R	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-65B	10/9/2007	Wolfe, Shan M	Mumper, Jennifer R	1	PVC	Yes	No	No		No	Yes	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes
MP-65C	10/9/2007	Wolfe, Shan M	Mumper, Jennifer R	2	PVC	No	No	No		No	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-66A	10/9/2007	DeCioccio, Christoph		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	No	Yes
MP-66B	10/9/2007	DeCioccio, Christoph		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	No	Yes
MP-66C	10/9/2007	DeCioccio, Christoph		2	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	Yes	No	Yes
MP-67A	10/9/2007	Wolfe, Shan M	Mumper, Jennifer R	1	PVC	Yes	No	No		Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	No	No	Yes
MP-67B	10/9/2007	Wolfe, Shan M	Mumper, Jennifer R	1	PVC	Yes	No	No		Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	No	No	Yes
MP-67C	10/9/2007	Wolfe, Shan M	Mumper, Jennifer R	2	PVC	Yes	No	No		Yes	Yes	No	Yes	No	Yes	Yes	No	No	No	No	No	Yes
MP-68	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-69	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-70	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-71	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-72	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-73	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-74	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-75	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	Well pad is floating.	No	No	Yes
MP-76	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-77A	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes	No	No		No	Yes	Yes	No	No	Yes	Yes	No	No	No	No	No	Yes
MP-77B	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	1	PVC	Yes	No	No		No	Yes	Yes	No	No	Yes	Yes	No	No	No	No	No	Yes
MP-77C	10/9/2007	McNurlen, Nathan C	Dale, Suzanne	2	PVC	Yes	No	No		No	Yes	Yes	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-78A	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-78B	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-78C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-78D	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-79A	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-79B	10/9/2007	Keck, Rodney (TDH)		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-79C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-79D	10/9/2007	Keck, Rodney (TDH)		2	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No	No	No	Yes
MP-80A	10/9/2007	Konarik, Stephen B		1	PVC	No	No	No		Yes	Yes	No	No	No	No	Yes	Yes	No	No			

**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

1190505040 -- Madison County -- ILR000128249  
The Hartford Working Group / Hartford, IL

Well	Dates	Field Staff 1	Field Staff 2	Well Casing Diameter (inches)	Material	Security Note	Protective Cover	Cover Note	Flush Mount	Flush Mount Bolt Problem	Flush Mount Seal	Flush Mount Note	Concrete Pad	Pad Note	Surface Drainage	Surface Drainage Note	Accessibility	Reason Inaccessible
MP-82B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No No No	Yes	Yes	No No No	No No	No No	No No	Yes No	No No	No No	No No	No Could not locate.	
MP-82C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-83A	10/9/2007	Keck, Rodney (TDH)		1	PVC	No No No	Yes	Yes	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-83B	10/9/2007	Keck, Rodney (TDH)		1	PVC	No No No	Yes	Yes	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-83C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No No No	Yes	Yes	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-84A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-84B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-84C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes No No	No	Yes	No Yes No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-85A	10/9/2007	Keck, Rodney (TDH)		1	PVC	No No No	Yes	Yes	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-85B	10/9/2007	Keck, Rodney (TDH)		1	PVC	No No No	Yes	Yes	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-85C	10/9/2007	Keck, Rodney (TDH)		2	PVC	No No No	Yes	Yes	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-85D	10/9/2007	Keck, Rodney (TDH)		2	PVC	No No No	Yes	Yes	Yes Yes No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-86A	10/9/2007	DeCioccio, Christoph		1	PVC	Yes No No	No	Yes	No Yes Yes	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-86B	10/9/2007	DeCioccio, Christoph		1	PVC	Yes No No	No	Yes	No No Yes	No No	No No	No No	Yes No	No Yes	No Yes	No Yes	Yes	
MP-86C	10/9/2007	DeCioccio, Christoph		2	PVC	No No No	No	Yes	No Yes No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-87A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-87B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-87C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	Yes No No	No	Yes	Yes No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-88A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No Yes	No Yes	No Yes	No Yes	Yes No	No No	No No	No No	Yes	
MP-88B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No Yes	No Yes	No Yes	No Yes	Yes No	No No	No No	No No	Yes	
MP-88C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	No No No	No	Yes	No No Yes	No Yes	No Yes	No Yes	Yes No	No No	No No	No No	Yes	
MP-89A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-89B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-89C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	2	PVC	Yes No No	No	Yes	No No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-90BR	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-90C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-91B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-91C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	Yes Yes No	No Yes	No Yes	No Yes	No No	No No	No No	No No	Yes	
MP-91D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No No No	No	No	No Yes No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-92C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	No No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-92D	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	2	PVC	No No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-93A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	Yes	Yes	No No No	No No	No No	No No	Yes No	Yes Yes	Yes Yes	Yes Yes	Yes	
MP-93B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No Yes	No Yes	No Yes	No Yes	Yes No	No No	No No	No No	Yes	
MP-94A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	Well lid is completely broken. Will not seal.				Yes	No No Yes	-	Yes No	Yes No	-	Yes	Yes
MP-94B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	Well lid is completely broken. Will not seal.				Yes	No No Yes	-	Yes No	Yes No	-	Yes	Yes
MP-95A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No Yes	No No	No No	No No	Yes No	Yes No	Yes No	Yes No	Yes	
MP-95B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No Yes	No No	No No	No No	Yes No	Yes No	Yes No	Yes No	Yes	
MP-96A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	No No Yes	No Yes	No Yes	No Yes	Yes No	No No	No No	No No	Yes	
MP-96B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	Yes	Yes	No No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-96C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	Well lid loose.	No	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-96D	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	Well lid loose.	No	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-97A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	No	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-97B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	No	Yes No No	No Yes	No Yes	No Yes	Yes No	No No	No No	No No	Yes	
MP-97C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	No	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-97D	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	No	Yes No No	No No	No No	No No	Yes No	No No	No No	No No	Yes	
MP-98A	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	Yes Yes No	No Yes	No Yes	No Yes	Well cover has a cracked bolt hole.	Yes No	Yes No	Yes No	Yes	
MP-98B	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	Yes Yes No	No Yes	No Yes	No Yes	Well cover has a cracked bolt hole.	Yes No	Yes No	Yes No	Yes	
MP-98C	10/9/2007	Mumper, Jennifer R	Wolfe, Shan M	1	PVC	Yes No No	No	Yes	Yes Yes No	No Yes	No Yes	No Yes	Well cover has a cracked bolt hole.	Yes No	Yes No	Yes No	Yes	
MP-99A	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-99B	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	
MP-99C	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	1	PVC	Yes No No	No	No	No No No	No No	No No	No No	No No	No No	No No	No No	Yes	

**Appendix A**  
**October 2007 Well Integrity Survey**  
**The Hartford Area Hydrocarbon Plume Site**

1190505040 – Madison County – ILR000128249  
The Hartford Working Group / Hartford, IL

Well	Date	Field Staff		Well Casing		Security			Protective Cover		Flush Mount		Concrete Pad		Surface Drainage		Accessibility			
		Field Staff 1	Field Staff 2	Diameter (Inches)	Material	Problem w/ Lock	Well Cap Missing	Well Cap Damaged	Security Note	Cover	Cover Note	Flush Mount	Flush Mount Soil Problem	Flush Mount Ears Damaged	Flush Mount Ears Stripped	Pad	Pad Note	Pad Cracked	Standing Water	Surface Drainage Note
RW-1	10/9/2007	Farquhar, Brandon	Reeker, Frederick A	30		No	No	No		No		No	No	No	No	No	No	No	No	Yes
RW-2	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	30		No	No	No		No		No	No	No	No	No	No	No	No	Yes
RW-3	10/9/2007	Keck, Rodney (TDH)		4	PVC	No	No	No		Yes		Yes	No	No	No	No	Yes	No	No	Yes
RW-4	10/9/2007	Keck, Rodney (TDH)		4	PVC	No	No	No		Yes		Yes	No	No	No	No	Yes	No	No	Yes
RW-4A	10/9/2007	Keck, Rodney (TDH)		4	PVC	No	No	No		Yes		Yes	Yes	No	No	No	Yes	No	No	Yes
RW-5	10/9/2007	Dale, Suzanne	McNurlen, Nathan C	4	PVC	No	No	No		No		Yes	Yes	No	No	Yes	No	No	No	Yes

## **APPENDIXB**

## **D. Discussion and Calculation**



## **Appendix B: D<sub>o</sub> Discussion and Calculation**

The following information was provided on behalf of Mr. Andrew Kirkman, of The RETEC Group, Inc., on November 7, 2005.

The fluid characteristics that influence LNAPL distribution and recoverability from the subsurface include the following:

- LNAPL Density
- LNAPL Viscosity
- LNAPL and Water Interfacial tensions

In addition, the soil type can have a large influence on LNAPL distribution and recoverability from the subsurface. Soil characteristics that effect the distribution and presence of LNAPL in the subsurface include:

- Porosity
- Intrinsic permeability
- Pore size distribution
- Soil grain shape

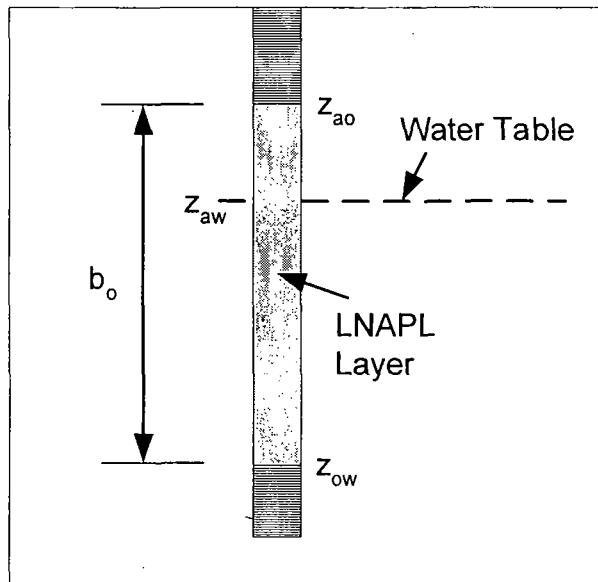
Accounting for these parameters is necessary in order to accurately assess the distribution of LNAPL in the formation and estimate the true amount of LNAPL in the subsurface. Mapping of apparent LNAPL thicknesses measured in monitoring wells at a site with varying soil and LNAPL type is not an accurate depiction of LNAPL extent or magnitude. In order to provide an estimate of the actual LNAPL in the subsurface, the term "LNAPL specific thickness" is proposed to estimate the true amount of LNAPL in the formation.

Because of the variance in soil and LNAPL physical characteristics, the same LNAPL thickness measured at two locations does not always represent the same distribution of LNAPL in the formation or the recoverability of LNAPL. For instance, one foot of LNAPL measured in a well installed in clay will have a much smaller specific thickness than if it were installed in sand. The same is true in terms of saturation. The pore spaces in sand are more interconnected and generally larger in the sand. The clay, however, has smaller and less interconnected pores and a higher pressure is required to saturate those to the same saturation.

The following schematic (Charbeneau et al., 1999) shows a monitoring well with an LNAPL layer located between the air-NAPL interface  $z_{ao}$  and the NAPL-water interface  $z_{ow}$ . The total monitoring well LNAPL

thickness is  $b_o$ . The elevation of the water table,  $z_{aw}$ , provides the datum for fluid levels. While the water table is not measured in a monitoring well because of the LNAPL layer, its elevation is easily determined from the elevations  $z_{ao}$  and  $z_{ow}$ , and the LNAPL specific gravity.

**Figure 1**



$D_o$  is defined as the specific thickness of LNAPL, which is representative of the amount of LNAPL in a formation. For example, if you had a core of soil separated into its respective media (i.e., air, water, LNAPL, and soil),  $D_o$  is a normalized volume of LNAPL ( $\text{feet}^3/\text{feet}^2$ ) per unit surface area, but is expressed as a thickness (in units of feet). At equilibrium, due to capillary forces in soil, the measured LNAPL thickness in a monitoring well,  $b_o$ , is always greater than  $D_o$ .

The relationship between measured monitoring well LNAPL thickness,  $b_o$ , and the specific LNAPL volume,  $D_o$  (the volume of LNAPL per unit surface area) may be calculated from the following equation:

$$D_o(b_o) = \int_{z_{ow}}^{z_{max}} n S_o(z) dz$$

Where:

$Z_{max}$  = height of oil

$Z_{ow}$  = height of the oil/water interface

$S_o$  = saturation of oil

$n$  = soil porosity

The function  $D_o(b_o)$  may be approximated piecewise by a linear function of the form:

$$D_o = \beta (b_o - \chi)$$

The most accurate method to estimate LNAPL specific thickness is to collect soil core data, analyze Dean Stark LNAPL saturations and integrate LNAPL saturation over discrete depth intervals to calculate  $D_o$  (Adamski, et al, 2003). If LNAPL saturation and soil core data are available,  $D_o$  is calculated as follows:

$$D_o = \text{LNAPL \%} * \text{porosity} * \text{soil core interval (ft.)}$$

Where:

LNAPL \% = oil saturation (in % of pore volume)

porosity = site-specific total porosity (in %)

soil core interval = interval of LNAPL impacted core (in feet)

Collection of soil cores from varying soil types across a site and discrete sampling and analyses of LNAPL saturations accurately depicts the true amount of LNAPL in each formation and eliminates the need for correction factors based on buoyancy or LNAPL density. Correction factors based on soil type and LNAPL type will provide accurate estimations of LNAPL specific thickness across a site.

### References

Adamski, M., V. Kremesec, R. Kolhatkar, C. Pearson, and B. Rowan, 2001. "LNAPL Saturation, Distribution, and Recovery in Fine Grained Soils," Proceedings of the Petroleum Hydrocarbons and Organic Chemicals in Ground Water Conference and Exposition, pp.178–192. November 14–16, 2001.

Charbeneau, R.J., R.T. Johns, L.W. Lake, and M.J. McAdams, 1999. "Free-Product Recovery of Petroleum Hydrocarbon Liquid." American Petroleum Institute, Publication No. 4682. Ground Water Monitoring & Remediation, 20(3), Summer, pp. 147-158, 2000. June 1999.

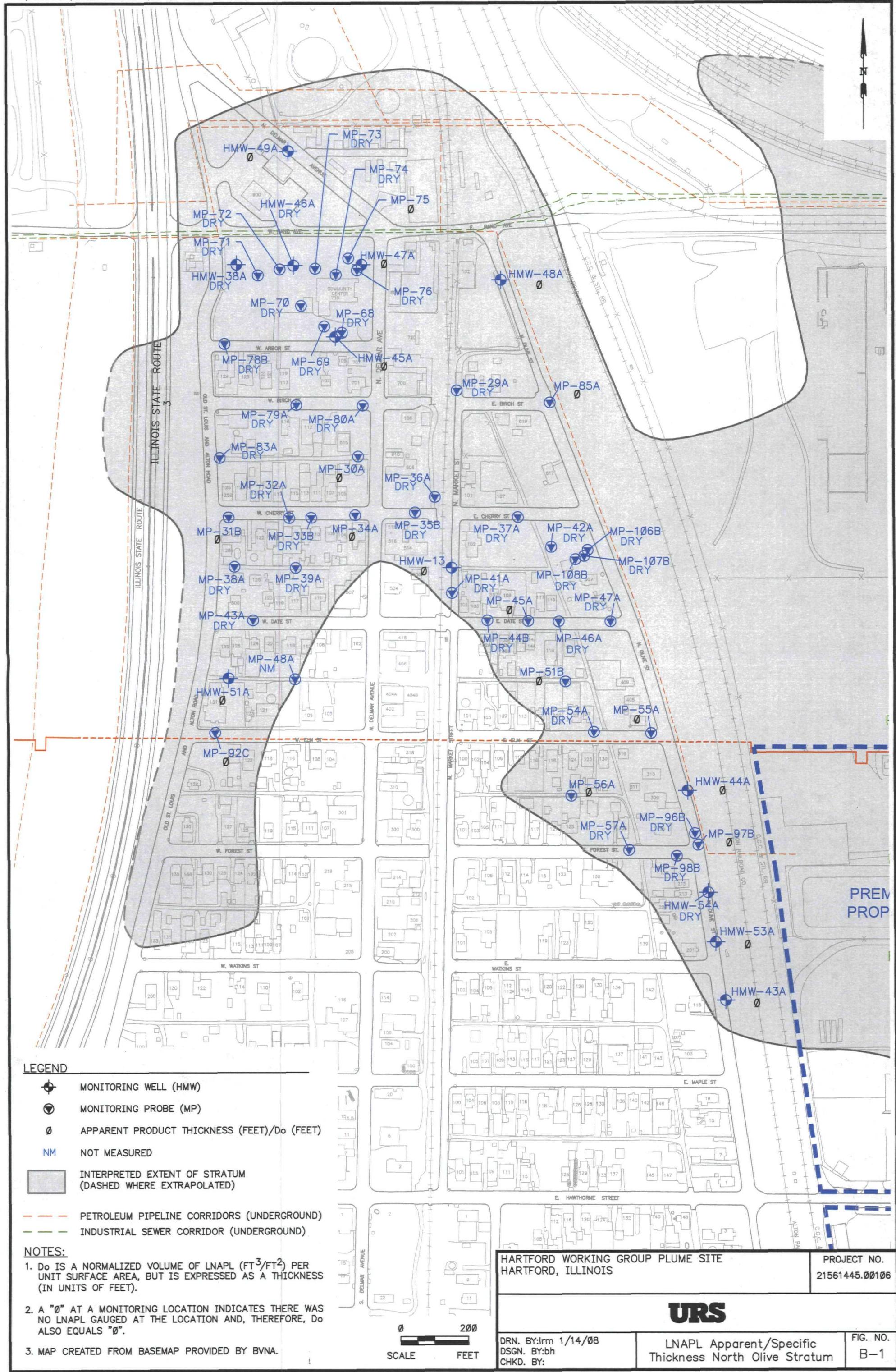
## **APPENDIX B**

## **D. Discussion and Calculation**

**B-1**

**LNAPL Specific Thickness ( $D_0$ )**  
**October 9-10, 2007**  
**North Olive Stratum**



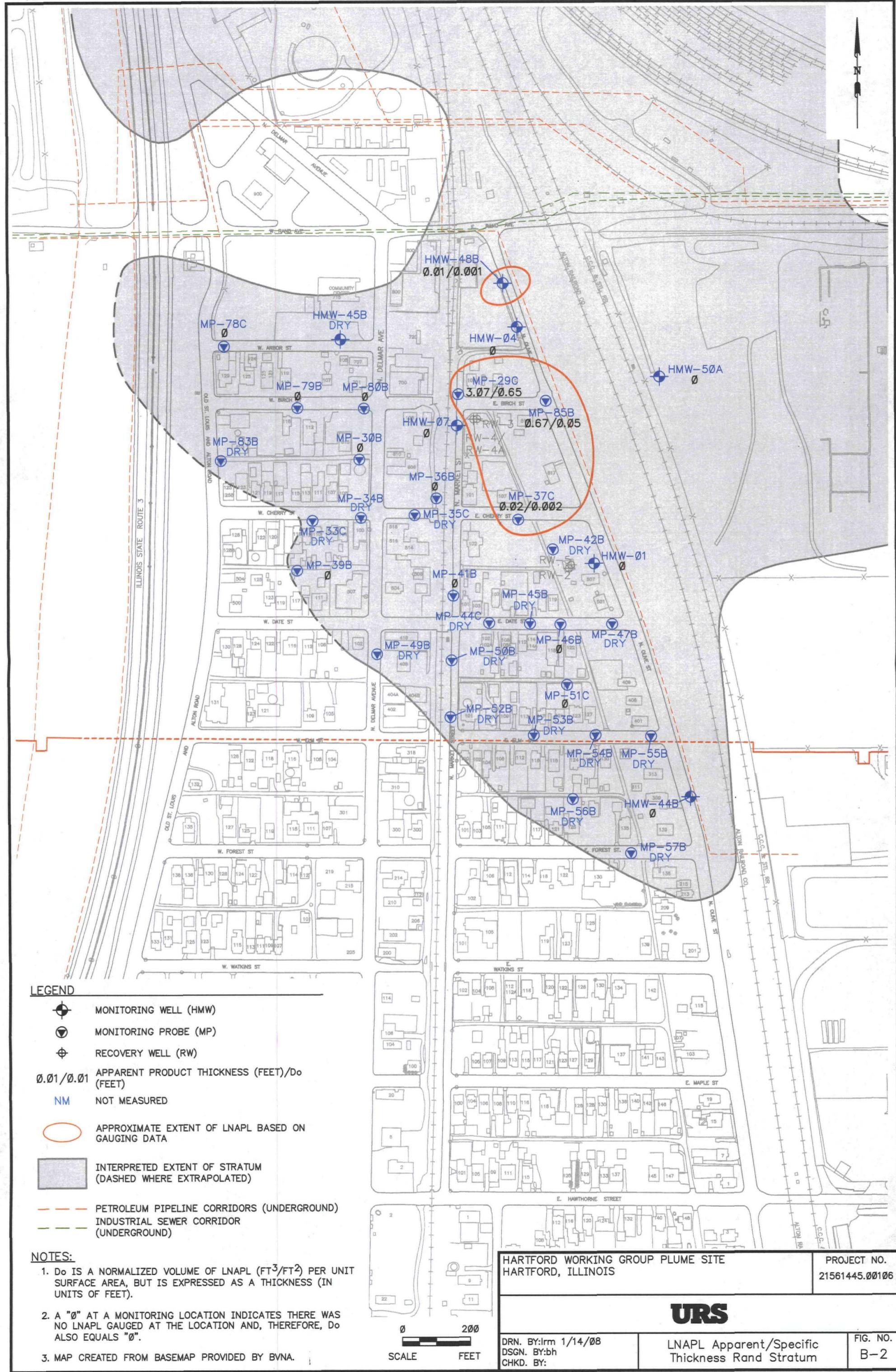


## **APPENDIX B**

## **D. Discussion and Calculation**

**B-2  
LNAPL Specific Thickness ( $D_0$ )  
October 9-10, 2007  
Rand Stratum**



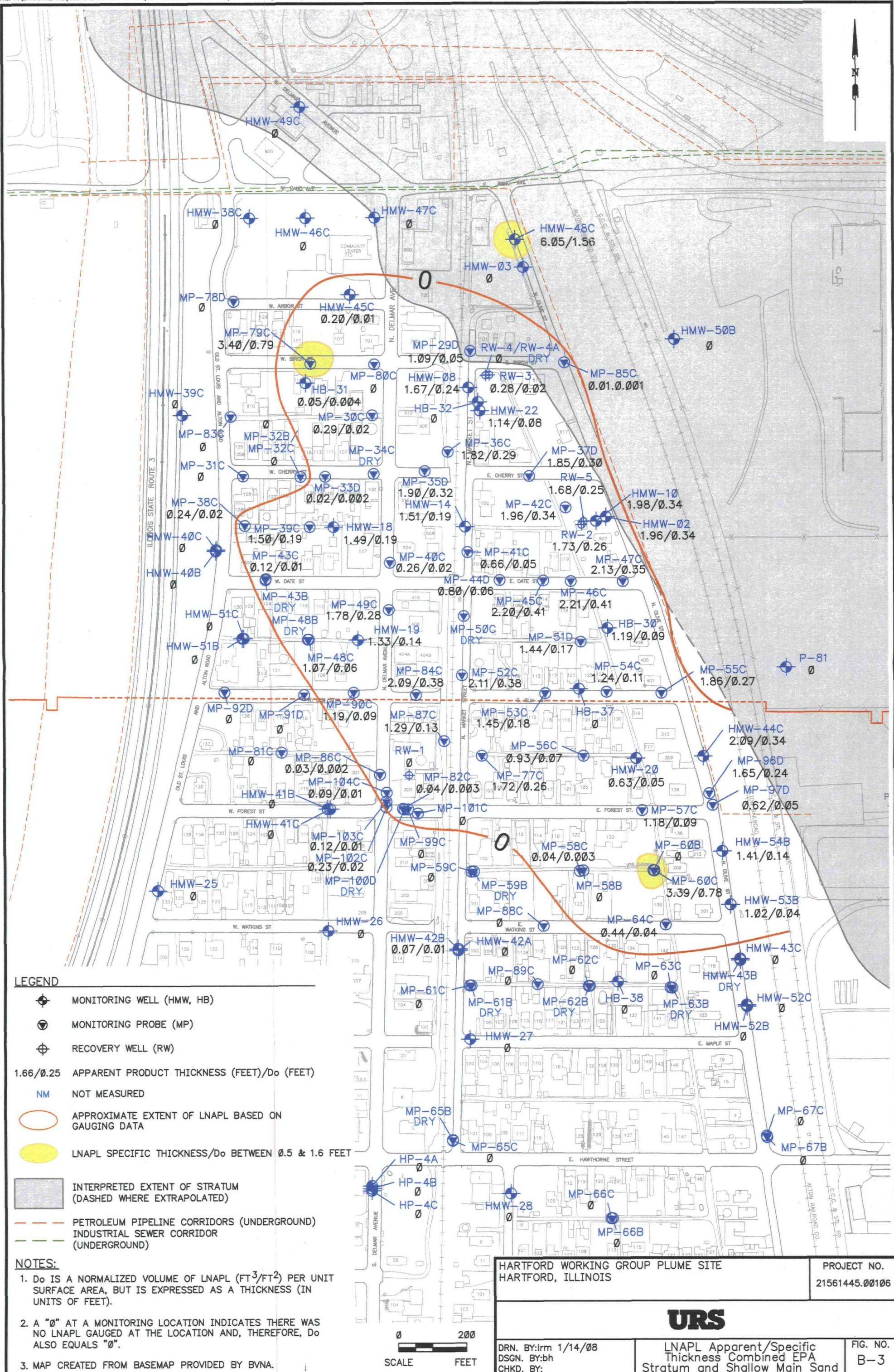


## **APPENDIX B**

## **D. Discussion and Calculation**

**B-3**  
**LNAPL Specific Thickness ( $D_0$ )**  
**October 9-10, 2007**  
**Combined EPA and Shallow Main Sand Strata**





## **APPENDIX B**

## **D. Discussion and Calculation**

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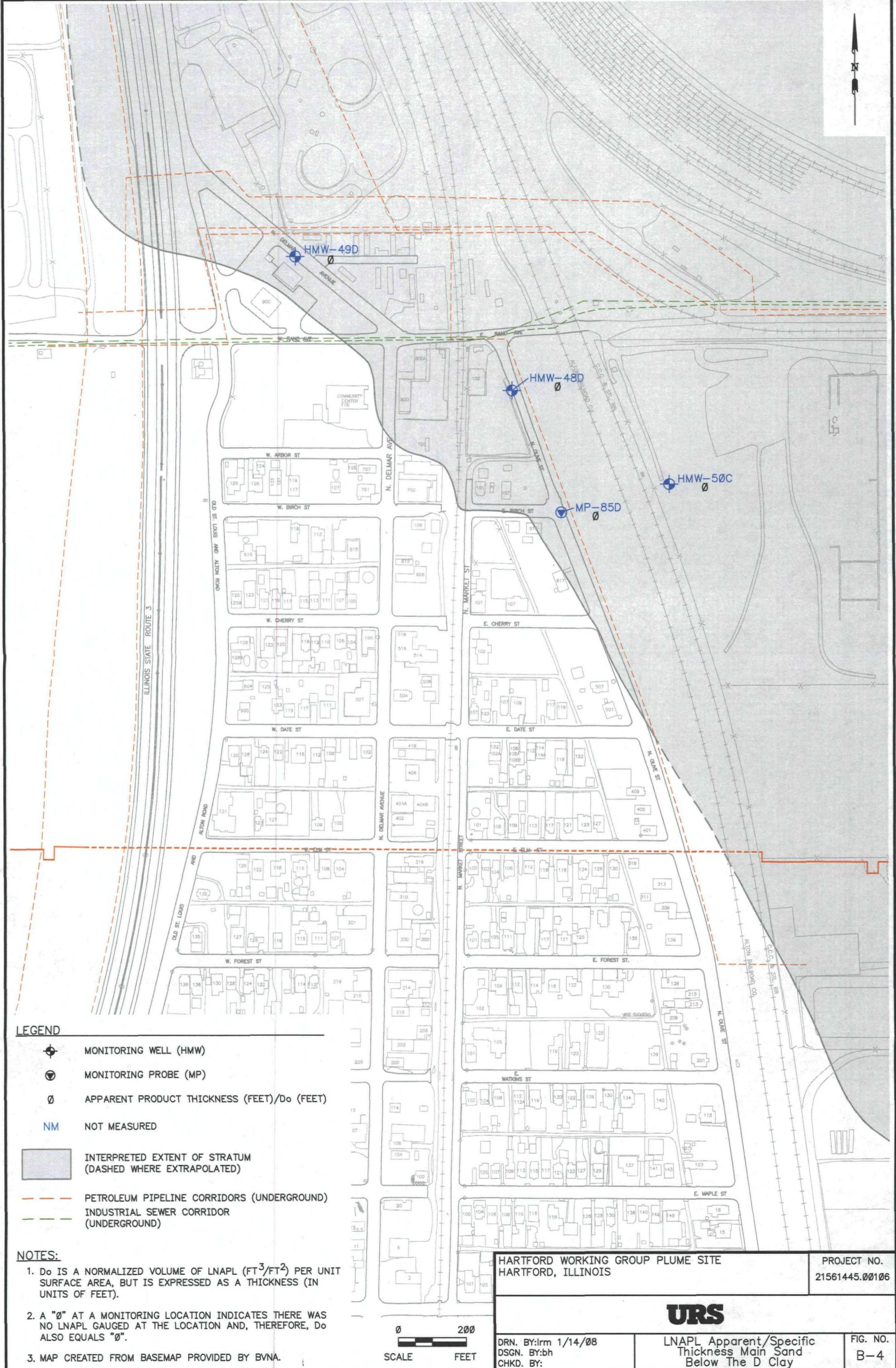
**B-4**

**LNAPL Specific Thickness ( $D_0$ )**

**October 9-10, 2007**

**Main Sand Below the D Clay**





## **Appendix C**

## **APPENDIX C**

## **URS Low Flow Sampling SOP**



**1. Objective**

This document defines the standard operating procedure (SOP) and necessary equipment for collection of groundwater samples in monitoring wells, extraction wells, or piezometers using low-flow techniques. The term "Low Flow" refers to the velocity that the groundwater is removed from the soil formation immediately adjacent to the well screen.

In this technique, in order to withdraw water from within the well screen and to lessen drawdown, a pump that minimizes disturbance to the groundwater is operated at a low flow rate. The well is only purged within the screened interval until specific parameters have stabilized and as according to the site-specific work plan. Therefore, the groundwater samples collected are representative of the water bearing formation and hydraulically isolated from the water in the casing. The need to purge three well volumes, as required in traditional techniques, is not necessary with low flow purging and sampling. The low flow procedure described in this SOP is not necessarily applicable for every site or for wells screened in materials with very low permeability.

SOPs providing additional related guidance are listed below:

- SOP No. 4 – Decontamination
- SOP No. 8 – Field Reporting and Documentation.
- SOP No. 10 – Groundwater Level Measurements
- SOP No. 20 – Monitoring Well Development and Purging
- SOP No. 24 – Sample Classification, Packaging and Shipping
- SOP No. 25 – Sample Containers, Preservation, and Holding Times
- SOP No. 26 – Sample Control and Custody Procedures.

**2. Equipment**

Equipment potentially used during well purging and sampling:

- Well installation forms and boring logs for well being sampled
- Well keys
- Disposable latex or nitrile gloves
- Assorted tools (socket set, screwdriver, etc.)
- New synthetic rope



- Pump and required accessories (described in more detail in following section)
- Electronic water level indicator with 0.01-foot increments
- Graduated cylinder
- Temperature meter
- pH meter (with automatic temperature compensation)
- Conductivity meter
- Turbidity meter
- Dissolved oxygen (DO) meter
- Oxidation reduction potential (ORP) meter
- Flow-through cell
- Calibration fluids
- Paper towels or Kimwipes
- Calculator
- Bound field logbook (logbook)
- Waterproof pen and permanent marker
- Plastic buckets
- 55-gallon drums or truck-mounted tank
- Plastic sheeting
- Appropriate decontamination equipment (see SOP No. 4)
- Cooler with ice
- Sample containers and labels
- Groundwater sampling form
- Chain-of-Custody form
- Appropriate health and safety equipment (e.g., photoionization detector (PID)).

### **3. Sampling Procedure**

This section provides the step-by-step procedure for collecting groundwater samples in the field.

Observations made during groundwater purging and sampling should be recorded in a logbook in accordance with procedures described in SOP No. 8.

- A. Any equipment used in the sampling procedure that could contact groundwater should be properly decontaminated before each use (see SOP No.4).
- B. Equipment should be calibrated based on the manufacturers' instructions. The frequency of calibration should be specified in the site-specific Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP) or work plan. According to "Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures" (United States Environmental Protection Agency (USEPA), 1996), pH calibration should be performed with at least two buffers that bracket the expected range of values. Dissolved oxygen calibration must be corrected for local barometric pressure readings and elevation.
- C. Before well purging begins, the following steps should be performed at each well:
  - Inspect the well and surrounding site for security, damage, and evidence of tampering. If damage or tampering is evident, contact the project manager for guidance.
  - Place clean plastic sheeting around the well (as necessary)
  - Measure ambient volatile organic compounds (VOCs) background levels in the immediate vicinity of the well (i.e., using a PID or a flame ionization detector (FID) per the Health and Safety Plan (HASP)).
  - Remove the well cap and immediately measure VOCs at the rim of the well and record the readings in the logbook or on the groundwater sampling form. Give the water in the well adequate time to reach equilibrium.
- D. After the well has reached equilibrium, the groundwater elevation should be measured to the nearest 1/100-foot. The total well depth and screened interval should be obtained from the well logs. Measuring the total depth prior to sampling should be avoided to prevent resuspension of settled solids in the well casings and to minimize the necessary purge time for turbidity equilibration. The total depth of the well should be confirmed after sampling has been completed. A detailed description of monitoring well gauging activities is provided in SOP No. 10.

- E. Following measurement of the static groundwater elevation, the appropriate equipment will be slowly and carefully placed in the well. If the wells have light or dense non-aqueous-phase liquids (LNAPLs or DNAPLs) care should be taken to place sampling equipment below or above the NAPL.

Selection of the proper pump is important for low-flow sampling activities. USEPA guidance (1996) notes that dedicated sampling devices capable of purging and sampling are preferred over any other type of device. In addition, the pump must be capable of flow rates between 0.1 and 1.0 liter per minute. A variety of portable sampling devices are available, such as bladder pumps, peristaltic pumps, electrical submersible pumps, gas-driven pumps, inertial lift foot-valve samplers (e.g. check-ball systems), and bailers (a list of pump manufacturers and suppliers is included on pg. 8). However, some of this sampling equipment has drawbacks or has been specifically rejected for low-flow sampling. The peristaltic pump can only be used for shallow applications and it can cause degassing of groundwater. Degassing results in the alteration of pH and alkalinity values as well as some loss of volatiles. Also, USEPA guidance asserts that inertial lift foot-valve type samplers and bailers cause too much groundwater disturbance and may invite unacceptable operator variability. Therefore, these sampling devices should be avoided for low-flow sampling activities.

When determining pump intake placement in the well, refer to the attached flowchart (Low Flow Monitoring Well Sampling – Determination of Pump/Tubing Intake). If the screen length allows, the pump intake should be at least two feet from the bottom of the screen. Placing the pump intake near the top of the water column can cause stagnant water from the casing to be purged, but placing the pump intake near to the bottom of the well can cause mobilization and entrainment of settled solids from the bottom of the well.

- F. Tubing should be connected from the pump to a flow-through cell. Then, calculate the volume of water to fill the flow-through cell and tubing. According to American Society for Testing and Materials (ASTM) Standard D 6771 (2002), the frequency of measurements should be equal to the time required to completely evacuate one volume of the cell. This ensures that independent measurements are made.
- G. The pump should be started at a low flow rate, approximately 100 mL/min or the lowest flow rate possible.
- H. Water level measurements should continue every two minutes until the measurements indicate that significant drawdown is not occurring. According to ASTM standards



(2002), allowable drawdown should never exceed the distance between the top of the well screen and the pump intake. Including a safety factor, also provided by ASTM, drawdown should actually not exceed 25% of this distance. This ensures that water stored in the casing is not purged or sampled. For example, for a 4-foot screen, the pump should be placed at the midpoint of the screen (two feet from the top of the screen to the pump intake). With a safety factor of 25%, this would require drawdown not to exceed six inches. However, based on historical procedure at the Hartford Working Group Plume Site, a more conservative rule that drawdown should not exceed 0.3 feet may also be used. When using the Troll 9500® or similar monitoring equipment to calculate purge volume, a stabilized drawdown value should be used rather than the initial drawdown value.

Once it has been established that significant drawdown is not occurring, the flow rate may be increased to  $\leq 1 \text{ L/m}$  (ASTM, 2002) or, if the flow rate remains the same, water level measurements need only to be taken periodically. However, when the flow rate is increased, water level measurements must continue every two minutes.

If drawdown surpasses 0.3 feet while pumping is occurring at the lowest flow rate possible, then the well will be purged dry. The well should be sampled no sooner than twenty-four hours after being purged dry, and only after a sufficient volume (commonly 90%) has recovered, or the water level has recovered sufficiently to collect the anticipated samples (ideally the intake should not be moved during this recovery period). Samples may then be collected even though the indicator field parameters have not stabilized.

- I. Parameters should be documented on the groundwater sampling form and in the logbook. The time between parameter measurements is calculated as follows:

$$T = \frac{V}{Q} \text{ , where}$$

$T$  = time between measurements (minutes)

$V$  = volume of the flow-through cell + volume of the tubing (liters)

$Q$  = purge flow rate (liters per minute)

Sampling should proceed as stated in the FSP or work plan. However, in most cases, purging will continue until specific parameters have stabilized over three consecutive readings, recorded at interval  $T$  as calculated in the equation above. **Table 1** provides



guidelines that may be used for parameter stabilization as specified by USEPA, ASTM, and in the Nielsen and Nielsen Technical Guidance on Low-Flow Purgung and Sampling and Minimum-Purge Sampling (Nielsen and Nielsen, 2002). These guidelines are to be used in combination with professional judgment.

**Table 1. Stabilization Guidelines for Low-Flow Sampling**

Parameter	Stabilization Guidelines			
	EPA	ASTM	Nielsen & Nielsen	Site Specific Criteria Used by Hartford Working Group
DO	+/- 10%	+/- 10% or +/- 0.2 mg/L, whichever is greatest	+/- 10% or +/- 0.2 mg/L, whichever is greatest	+/- 0.3 mg/L
ORP	+/- 10 mV	+/- 20 mV	+/- 20 mV	+/- 10 mV
PH	+/- 0.1 units	+/- 0.2 units	+/- 0.2 units	+/- 0.1 units
Conductivity	+/- 3%	+/- 3%	+/- 3%	+/- 3%
Temperature	Not Specified	Not Specified	+/- 0.2 °C	+/- 3%
Turbidity	+/- 10%	Not Specified	Not Specified	+/- 10 %

- J. After the relevant parameters have stabilized, the flow-through cell should be disconnected or bypassed for sampling. If, after a considerable number of readings have been taken, parameters have not stabilized, samplers should refer to the work plan or possibly use alternative sampling methods.
- K. The flow rate should be adjusted to less than 0.5 L/min for sampling to minimize aeration during the sampling of volatiles.
- L. A new pair of disposable latex or nitrile gloves should be put on immediately before sampling.
- M. The constituents should be sampled for in the order given below:
  - VOCs – Vials should be filled completely so that the water forms a convex meniscus then capped so that no air space exists in the vial. Turn the vial over and tap it to check for bubbles. If air bubbles are observed in the sample vial, remove the lid and



attempt to fill the vial two more times, (being careful not to dump out any groundwater currently in the vial). If air bubbles are present twice more, discard the sample vial and repeat the procedure with a new vial. If, after three attempts, air bubbles are still in the vial, make a note of this and place the vial in the cooler.

- Gas sensitive parameters (e.g., ferrous iron, methane, alkalinity)
- Semivolatile organic compounds, pesticides, polychlorinated biphenyls, and herbicides
- Petroleum hydrocarbons
- Metals (unfiltered)
- Explosives
- Any filtered analytes (use in-line filters if possible)

- O. Place all samples on ice inside a cooler immediately.
- P. Each sample should be identified with the Sample ID, location, analysis number, preservatives, date and time of sampling event, and sampler.
- Q. The sample time and constituents to be analyzed for should be recorded in the logbook and on the groundwater sampling form.
- R. Chain-of-custody procedures should be started.
- S. Sample equipment should be decontaminated.
- T. The well sampling order should be dependent on expected levels of contamination in each well, if known, and should be determined prior to sampling. Sampling should progress from the least contaminated to the most contaminated well. Quality assurance/quality control (QA/QC) samples should be collected during groundwater sampling as required in the work plan and/or QAPP.

#### **4. List Of Potential Suppliers Who Provide Pumps Suitable for Low-Flow Sampling:**

Field Environmental. 1-800-3930-4009. [www.fieldenvironmental.com](http://www.fieldenvironmental.com). Pumps: peristaltic, QED bladder pumps, Fultz rotor pump, control boxes, compressors, etc.

QED. 1-800-624-2026. [www.micropurge.com](http://www.micropurge.com). Pumps: bladder pumps, flow cell, compressors, etc.

Fultz Pumps. 1-717-248-2300. [www.fultzpumps.com](http://www.fultzpumps.com).



**5. References**

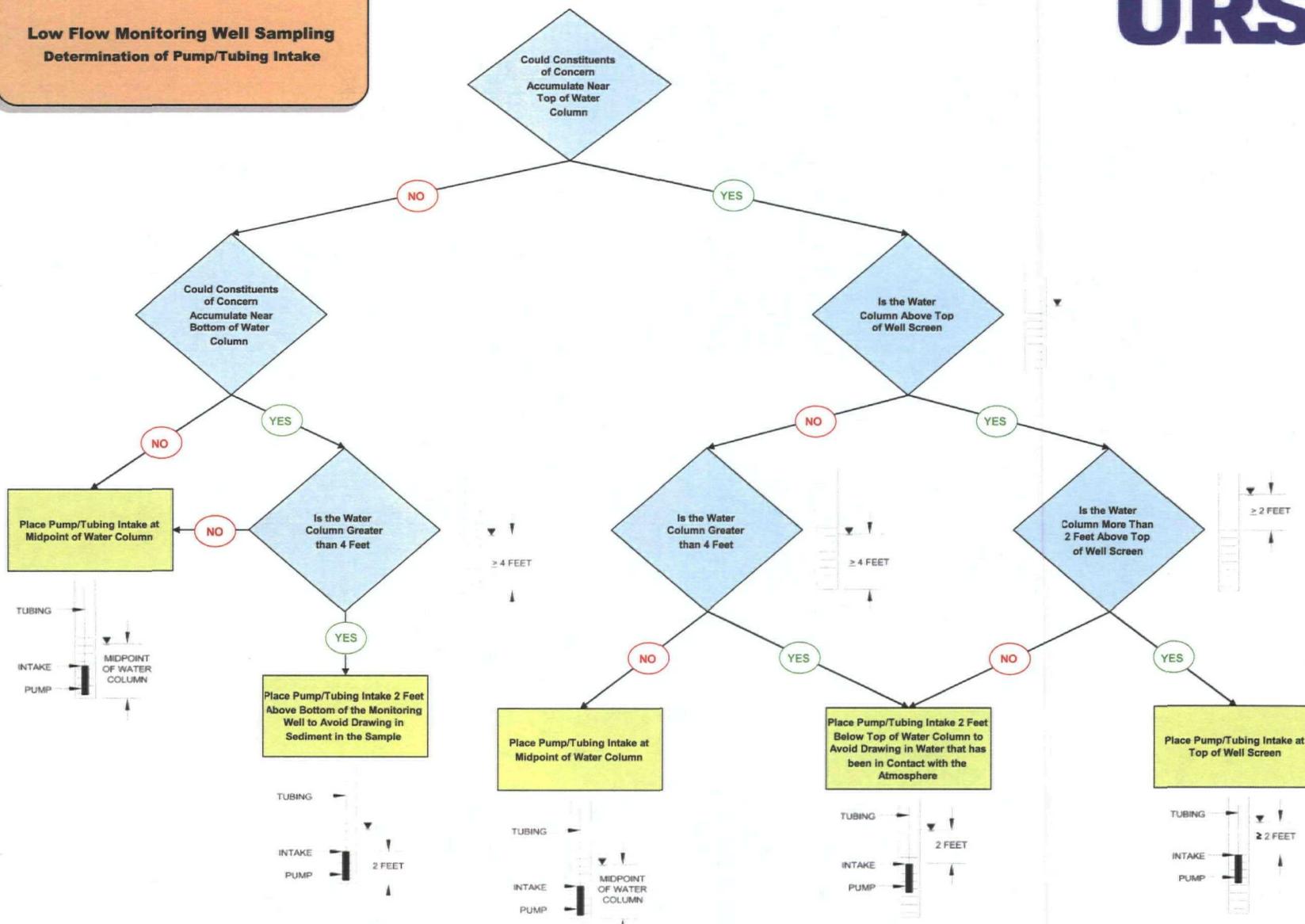
ASTM 2002, Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations, ASTM D6771-02, American Society for Testing and Materials. West Conshohocken, PA.

Nielsen, David and Nielsen, Gillian. Technical Guidance on Low-Flow Purging and Sampling and Minimum-Purge Sampling. Second Edition. NEFS-TG001-02. April 2002.

USEPA. 1996. Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures. EPA/540/S-95/504. OSWER, April 1996.

**FLOWCHART**

**Low Flow Monitoring Well Sampling**  
**Determination of Pump/Tubing Intake**



Note: If water column is <2 feet, DO NOT Use Low Flow Sampling SOP



## **APPENDIX D      Summary of Indicator Parameter Measurements – October 2007**

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**Troll 9000**

10/15/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name J. Mumper  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 38 [ft]  
Pump placement from TOC 30 [ft]

**Well Information:**

Well Id HMW-25  
Well diameter 2 [in]  
Well total depth 35.14 [ft]  
Depth to top of screen 23.67 [ft]  
Screen length 176.4 [in]  
Depth to Water 0 [ft]

**Pumping information:**

Final pumping rate 260 [mL/min]  
Flowcell volume 286.61 [mL]  
Calculated Sample Rate 67 [sec]  
Sample rate 67 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	10:07:57	16.83	6.79	1757.92	32.71	1.75	134.12	
	10:09:04	16.83	6.79	1758.24	46.27	1.75	134.21	
	10:10:11	16.81	6.79	1757.63	39.02	1.74	134.51	
	10:11:18	16.86	6.79	1759.20	38.26	1.74	134.77	
	10:12:25	16.82	6.79	1759.52	35.37	1.72	135.37	
Variance in last 3 readings	10:10:11	-0.03	0.00	-0.61	-7.25	-0.01	0.30	
	10:11:18	0.06	0.00	1.56	-0.75	0.00	0.26	
	10:12:25	-0.05	0.00	0.32	-2.90	-0.02	0.60	

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-25-10-15-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	J. Mumper		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-25		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	38 [ft]
Well Depth:	35.14 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	23.67 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	0 [ft]
Pump Level (TOC):	30 [ft]

Final Pumping Rate:	260 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (169.6 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	286.61 [mL]
Actual Total Volume:	286.61 [mL]
Calculated Measurement Interval:	67 [sec]
Actual Measurement Interval:	67 [sec]

Start date/time:	10/15/2007	9:28:39																																																																																																
End date/time:	10/15/2007	10:13:05																																																																																																
Total Time:	0.44.26																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.79</td> <td>0</td> <td>134.12</td> <td>0.26</td> <td>1.75</td> <td>0.02</td> <td></td> <td></td> <td>1757.92</td> <td>-0.92</td> <td>32.71</td> <td>-14.7</td> <td>19:55:12</td> <td>-0.04</td> <td>0.422188</td> </tr> <tr> <td>3</td> <td>6.79</td> <td>0</td> <td>134.21</td> <td>0.09</td> <td>1.75</td> <td>0</td> <td></td> <td></td> <td>1758.24</td> <td>0.32</td> <td>46.27</td> <td>13.56</td> <td>19:55:12</td> <td>0</td> <td>0.422963</td> </tr> <tr> <td>2</td> <td>6.79</td> <td>0</td> <td>134.51</td> <td>0.3</td> <td>1.74</td> <td>-0.01</td> <td></td> <td></td> <td>1757.63</td> <td>-0.61</td> <td>39.02</td> <td>-7.25</td> <td>19:26:24</td> <td>-0.03</td> <td>0.423738</td> </tr> <tr> <td>1</td> <td>6.79</td> <td>0</td> <td>134.77</td> <td>0.26</td> <td>1.74</td> <td>0</td> <td></td> <td></td> <td>1759.2</td> <td>1.56</td> <td>38.26</td> <td>-0.75</td> <td>20:38:24</td> <td>0.06</td> <td>0.424514</td> </tr> <tr> <td>0</td> <td>6.79</td> <td>0</td> <td>135.37</td> <td>0.6</td> <td>1.72</td> <td>-0.02</td> <td></td> <td></td> <td>1759.52</td> <td>0.32</td> <td>35.37</td> <td>-2.9</td> <td>19:40:48</td> <td>-0.05</td> <td>0.425289</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.79	0	134.12	0.26	1.75	0.02			1757.92	-0.92	32.71	-14.7	19:55:12	-0.04	0.422188	3	6.79	0	134.21	0.09	1.75	0			1758.24	0.32	46.27	13.56	19:55:12	0	0.422963	2	6.79	0	134.51	0.3	1.74	-0.01			1757.63	-0.61	39.02	-7.25	19:26:24	-0.03	0.423738	1	6.79	0	134.77	0.26	1.74	0			1759.2	1.56	38.26	-0.75	20:38:24	0.06	0.424514	0	6.79	0	135.37	0.6	1.72	-0.02			1759.52	0.32	35.37	-2.9	19:40:48	-0.05	0.425289
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.79	0	134.12	0.26	1.75	0.02			1757.92	-0.92	32.71	-14.7	19:55:12	-0.04	0.422188																																																																																			
3	6.79	0	134.21	0.09	1.75	0			1758.24	0.32	46.27	13.56	19:55:12	0	0.422963																																																																																			
2	6.79	0	134.51	0.3	1.74	-0.01			1757.63	-0.61	39.02	-7.25	19:26:24	-0.03	0.423738																																																																																			
1	6.79	0	134.77	0.26	1.74	0			1759.2	1.56	38.26	-0.75	20:38:24	0.06	0.424514																																																																																			
0	6.79	0	135.37	0.6	1.72	-0.02			1759.52	0.32	35.37	-2.9	19:40:48	-0.05	0.425289																																																																																			

pH Min:	6.79
pH Max:	6.79
ORP Min:	134.12
ORP Max:	135.37
DO Min:	1.72
DO Max:	1.75
RDO Min:	
RDO Max:	
Cond Min:	1757.63
Cond Max:	1759.52
Turb Min:	32.71
Turb Max:	46.27
Temp Min:	16.81
Temp Max:	16.86

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.443831019
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00108-HWG-HMW-25-10-15-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45711
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39370 0.394895833
Test started on:	39370 0.394895833
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	38

Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [26]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)										
			Chan[1] Temperature	Chan[3] Barometric	Chan[4] Turbidity	Chan[5] Battery	Chan[11] ORP	Chan[12] pH	Chan[25] Clark DO	Chan[25] Clark DO Sat	Chan[45] Conductivity	microSiemen s/cm Actual Conductivity
10/15/2007	9:28:39	0	16.45	29.493	39.4	2.785	195	6.79	3.37	35.1986	1742.06	
10/15/2007	9:29:45	66	16.45	29.492	41.6	2.785	193	6.8	3.08	32.1538	1739.91	
10/15/2007	9:30:53	134	16.4	29.493	38.3	2.759	190	6.79	2.89	30.2088	1741.72	
10/15/2007	9:32:00	201	16.41	29.492	46	2.785	188	6.79	2.71	28.2977	1741.71	
10/15/2007	9:35:22	403	16.38	29.49	37.4	2.759	178	6.79	2.33	24.2962	1742.28	
10/15/2007	9:36:29	470	16.44	29.489	40.3	2.785	175	6.79	2.27	23.7394	1743.5	
10/15/2007	9:37:36	537	16.41	29.486	39.3	2.759	173	6.79	2.17	22.656	1743.79	
10/15/2007	9:38:44	605	16.42	29.486	32.4	2.759	171	6.79	2.14	22.3596	1743.18	
10/15/2007	9:39:51	672	16.47	29.486	38.9	2.759	168	6.79	2.08	21.7541	1744.7	
10/15/2007	9:40:59	740	16.43	29.485	35.1	2.759	165	6.79	2.03	21.2104	1745.61	
10/15/2007	9:42:07	808	16.51	29.483	43.6	2.759	162	6.79	1.99	20.8065	1745.31	
10/15/2007	9:43:14	875	16.46	29.482	28.8	2.759	158	6.79	1.93	20.2138	1745	
10/15/2007	9:44:21	942	16.51	29.48	32.2	2.759	154	6.79	1.92	20.1157	1745.3	
10/15/2007	9:45:28	1009	16.44	29.478	34.9	2.759	151	6.79	1.89	19.75	1744.69	
10/15/2007	9:46:36	1077	16.55	29.476	39.8	2.759	148	6.79	1.85	19.4261	1746.23	
10/15/2007	9:47:43	1144	16.49	29.474	41.2	2.759	147	6.79	1.84	19.2182	1750.54	
10/15/2007	9:48:50	1211	16.55	29.473	30.3	2.759	145	6.79	1.81	18.9548	1751.17	
10/15/2007	9:49:58	1279	16.48	29.472	46	2.759	144	6.79	1.81	18.9111	1748.72	
10/15/2007	9:51:05	1346	16.57	29.471	34.3	2.759	142	6.79	1.78	18.6628	1749.04	
10/15/2007	9:52:12	1413	16.59	29.47	53.2	2.759	141	6.79	1.76	18.4971	1749.98	
10/15/2007	9:53:21	1482	16.56	29.468	34	2.759	139	6.79	1.73	18.1393	1747.23	
10/15/2007	9:54:28	1549	16.58	29.467	47.9	2.759	138	6.79	1.76	18.4417	1748.17	
10/15/2007	9:55:36	1617	16.5	29.467	43.4	2.785	137	6.79	1.72	17.9864	1746.34	
10/15/2007	9:56:42	1683	16.63	29.465	49.5	2.759	136	6.79	1.72	18.0077	1750.05	
10/15/2007	9:57:50	1751	16.59	29.464	42.3	2.759	135	6.79	1.72	18.0352	1753.46	
10/15/2007	9:58:57	1818	16.75	29.463	31.9	2.785	135	6.79	1.71	17.9709	1759.06	
10/15/2007	10:00:04	1885	16.77	29.463	38.6	2.785	135	6.79	1.72	18.1157	1761.26	
10/15/2007	10:01:12	1953	16.83	29.461	33.9	2.785	134	6.79	1.67	17.6412	1762.21	
10/15/2007	10:02:19	2020	16.8	29.461	34.3	2.785	134	6.78	1.75	18.4154	1762.23	
10/15/2007	10:03:27	2088	16.84	29.461	27.7	2.759	134	6.79	1.73	18.231	1760.99	
10/15/2007	10:04:34	2155	16.8	29.458	38.5	2.759	134	6.79	1.73	18.2575	1758.82	
10/15/2007	10:05:41	2222	16.82	29.456	43.6	2.759	134	6.79	1.73	18.2817	1760.7	
10/15/2007	10:06:50	2291	16.87	29.454	47.4	2.759	134	6.79	1.73	18.2227	1758.85	
10/15/2007	10:07:57	2358	16.83	29.454	32.7	2.759	134	6.79	1.75	18.4346	1757.92	
10/15/2007	10:09:04	2425	16.83	29.452	46.3	2.759	134	6.79	1.75	18.4035	1758.24	
10/15/2007	10:10:11	2492	16.81	29.45	39	2.759	135	6.79	1.74	18.3272	1757.63	
10/15/2007	10:11:18	2559	16.86	29.45	38.3	2.759	135	6.79	1.74	18.387	1759.2	
10/15/2007	10:12:25	2626	16.82	29.448	35.4	2.785	135	6.79	1.72	18.1679	1759.52	

**Troll 9000**

10/15/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name J Mumper  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 39 [ft]  
Pump placement from TOC 27.86 [ft]

**Well Information:**

Well Id HMW-26  
Well diameter 2 [in]  
Well total depth 35.59 [ft]  
Depth to top of screen 24.61 [ft]  
Screen length 176.4 [in]  
Depth to Water 25.86 [ft]

**Pumping information:**

Final pumping rate 180 [mL/min]  
Flowcell volume 291.07 [mL]  
Calculated Sample Rate 98 [sec]  
Sample rate 98 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
				+/-3 %	+/-10 %			
Last 5 Readings	11:29:18	18.30	6.65	3108.96	11.20	1.73	-87.19	
	11:30:56	18.31	6.65	3112.83	7.11	1.68	-87.79	
	11:32:34	18.27	6.65	3116.72	9.86	1.67	-88.13	
	11:34:14	18.30	6.65	3124.54	9.10	1.66	-88.60	
	11:35:52	18.22	6.65	3115.72	9.79	1.63	-88.78	
Variance in last 3 readings	11:32:34	-0.03	0.00	3.89	2.76	-0.01	-0.34	
	11:34:14	0.02	0.00	7.83	-0.76	-0.01	-0.47	
	11:35:52	-0.08	0.00	-8.82	0.69	-0.03	-0.17	

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-26-10-15-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is installed.

Operator Name:	J Mumper
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-26

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	39 [ft]
Well Depth:	35.59 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.61 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	25.86 [ft]
Pump Level (TOC):	27.86 [ft]

Final Pumping Rate:	180 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (174.1 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	291.07 [mL]
Actual Total Volume:	291.07 [mL]
Calculated Measurement Interval:	98 [sec]
Actual Measurement Interval:	98 [sec]

Start date/time:	10/15/2007	11:24:22																																																																																																
End date/time:	10/15/2007	11:36:45																																																																																																
Total Time:	0:12:23																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.65</td> <td>0</td> <td>-87.19</td> <td>-0.86</td> <td>1.73</td> <td>-0.04</td> <td></td> <td></td> <td>3108.96</td> <td>4.82</td> <td>11.2</td> <td>-1.58</td> <td>7:12:00</td> <td>0.02</td> <td>0.478681</td> </tr> <tr> <td>3</td> <td>6.65</td> <td>0</td> <td>-87.79</td> <td>-0.6</td> <td>1.68</td> <td>-0.05</td> <td></td> <td></td> <td>3112.83</td> <td>3.87</td> <td>7.11</td> <td>-4.1</td> <td>7:26:24</td> <td>0.01</td> <td>0.479815</td> </tr> <tr> <td>2</td> <td>6.65</td> <td>0</td> <td>-88.13</td> <td>-0.34</td> <td>1.67</td> <td>-0.01</td> <td></td> <td></td> <td>3116.72</td> <td>3.89</td> <td>9.86</td> <td>2.76</td> <td>6:28:48</td> <td>-0.03</td> <td>0.480949</td> </tr> <tr> <td>1</td> <td>6.65</td> <td>0</td> <td>-88.6</td> <td>-0.47</td> <td>1.66</td> <td>-0.01</td> <td></td> <td></td> <td>3124.54</td> <td>7.83</td> <td>9.1</td> <td>-0.76</td> <td>7:12:00</td> <td>0.02</td> <td>0.482106</td> </tr> <tr> <td>0</td> <td>6.65</td> <td>0</td> <td>-88.78</td> <td>-0.17</td> <td>1.63</td> <td>-0.03</td> <td></td> <td></td> <td>3115.72</td> <td>-8.82</td> <td>9.79</td> <td>0.69</td> <td>5:16:48</td> <td>-0.08</td> <td>0.483241</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.65	0	-87.19	-0.86	1.73	-0.04			3108.96	4.82	11.2	-1.58	7:12:00	0.02	0.478681	3	6.65	0	-87.79	-0.6	1.68	-0.05			3112.83	3.87	7.11	-4.1	7:26:24	0.01	0.479815	2	6.65	0	-88.13	-0.34	1.67	-0.01			3116.72	3.89	9.86	2.76	6:28:48	-0.03	0.480949	1	6.65	0	-88.6	-0.47	1.66	-0.01			3124.54	7.83	9.1	-0.76	7:12:00	0.02	0.482106	0	6.65	0	-88.78	-0.17	1.63	-0.03			3115.72	-8.82	9.79	0.69	5:16:48	-0.08	0.483241
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.65	0	-87.19	-0.86	1.73	-0.04			3108.96	4.82	11.2	-1.58	7:12:00	0.02	0.478681																																																																																			
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1	6.65	0	-88.6	-0.47	1.66	-0.01			3124.54	7.83	9.1	-0.76	7:12:00	0.02	0.482106																																																																																			
0	6.65	0	-88.78	-0.17	1.63	-0.03			3115.72	-8.82	9.79	0.69	5:16:48	-0.08	0.483241																																																																																			

pH Min:	6.65
pH Max:	6.65
ORP Min:	-88.78
ORP Max:	-87.19
DO Min:	1.63
DO Max:	1.73
RDO Min:	
RDO Max:	
Cond Min:	3108.96
Cond Max:	3124.54
Turb Min:	7.11
Turb Max:	11.2
Temp Min:	18.22
Temp Max:	18.31

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.444710548
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-26-10-15-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45711
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39370 0.47525463
Test started on:	39370 0.47525463
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	8

TOTAL DATA SAMPLES	8
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity
10/15/2007	11:24:22	0	18.45	29.471	18.2	2.759	-82	6.66	1.99	21.759	3101.32
10/15/2007	11:26:00	98	18.46	29.471	18.1	2.785	-85	6.66	1.85	20.258	3105.16
10/15/2007	11:27:39	197	18.28	29.469	12.8	2.759	-86	6.65	1.77	19.3397	3104.15
10/15/2007	11:29:18	296	18.3	29.467	11.2	2.759	-87	6.65	1.73	18.8796	3108.96
10/15/2007	11:30:56	394	18.31	29.467	7.1	2.785	-88	6.65	1.68	18.3365	3112.83
10/15/2007	11:32:34	492	18.27	29.469	9.9	2.759	-88	6.65	1.67	18.2377	3116.72
10/15/2007	11:34:14	592	18.3	29.469	9.1	2.785	-89	6.65	1.66	18.1325	3124.54
10/15/2007	11:35:52	690	18.22	29.468	9.8	2.759	-89	6.65	1.63	17.7922	3115.72

**Troll 9000**

10/15/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name J Mumper  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 39 [ft]  
Pump placement from TOC 33 [ft]

**Well Information:**

Well Id HMW-27  
Well diameter 2 [in]  
Well total depth 35.03 [ft]  
Depth to top of screen 24.62 [ft]  
Screen length 176.4 [in]  
Depth to Water 31.17 [ft]

**Pumping information:**

Final pumping rate 104 [mL/min]  
Flowcell volume 291.07 [mL]  
Calculated Sample Rate 168 [sec]  
Sample rate 168 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	14:14:10	18.46	6.58	2362.44	4.77	1.43	104.51	
	14:16:59	18.44	6.58	2350.65	10.42	1.42	104.89	
	14:19:49	18.47	6.58	2358.96	21.31	1.42	103.90	
	14:22:38	18.35	6.58	2350.54	19.67	1.42	103.85	
	14:25:27	18.50	6.58	2357.15	18.99	1.40	104.19	
Variance in last 3 readings		14:19:49	0.03	0.00	8.31	10.88	0.01	-0.99
		14:22:38	-0.12	0.00	-8.42	-1.63	-0.01	-0.05
		14:25:27	0.15	0.00	6.61	-0.68	-0.02	0.33

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-27-10-15-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	J Mumper		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-27		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	39 [ft]
Well Depth:	35.03 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.62 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	31.17 [ft]
Pump Level (TOC):	33 [ft]

Final Pumping Rate:	104 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (174.1 mL) - pH (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	291.07 [mL]
Actual Total Volume:	291.07 [mL]
Calculated Measurement Interval:	168 [sec]
Actual Measurement Interval:	168 [sec]

Start date/time:	10/15/2007	13:23:27																																																																																																
End date/time:	10/15/2007	14:25:30																																																																																																
Total Time:	1:02:03																																																																																																	
<hr/>																																																																																																		
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Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [l]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.58	0	104.51	-2.36	1.43	-0.01			2362.44	1.06	4.77	-1.1	11:02:24	-0.02	0.593171																																																																																			
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2	6.58	0	103.9	-0.99	1.42	0.01			2358.96	8.31	21.31	10.88	11:16:48	0.03	0.597095																																																																																			
1	6.58	0	103.85	-0.05	1.42	-0.01			2350.54	-8.42	19.67	-1.63	8:24:00	-0.12	0.599051																																																																																			
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pH Min:	6.58
pH Max:	6.58
ORP Min:	103.85
ORP Max:	104.89
DO Min:	1.4
DO Max:	1.43
RDO Min:	
RDO Max:	
Cond Min:	2350.54
Cond Max:	2362.44
Turb Min:	4.77
Turb Max:	21.31
Temp Min:	18.35
Temp Max:	18.5

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.44568287
Report from file:	...\\Hartford Groundwater Sampling - 21581445.00106-HWG-HMW-27-10-15-2007.flb.bin
Win-Situ® Version	4.57.5.0
Serial number:	45711
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39370 0.557951389
Test started on:	39370 0.557951389
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	23

TOTAL DATA SAMPLES	23
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity
10/15/2007	13:23:27	0	20.39	29.422	10.7	2.785	126	6.6	2.38	27.0826	2486.7
10/15/2007	13:26:16	169	20.35	29.418	13.7	2.759	128	6.59	1.94	22.0272	2489.66
10/15/2007	13:29:05	338	19.03	29.412	5.4	2.759	127	6.59	1.76	19.4496	2408.17
10/15/2007	13:31:53	506	18.8	29.409	8.1	2.759	125	6.59	1.62	17.8974	2398.17
10/15/2007	13:34:42	675	18.66	29.408	12.4	2.785	123	6.59	1.57	17.245	2391.14
10/15/2007	13:37:32	845	18.68	29.407	4.8	2.759	121	6.59	1.53	16.818	2391.59
10/15/2007	13:40:21	1014	18.56	29.402	0.8	2.759	118	6.59	1.5	16.4711	2386.34
10/15/2007	13:43:10	1183	18.43	29.397	8.1	2.759	116	6.59	1.49	16.3044	2378.29
10/15/2007	13:45:59	1352	18.47	29.384	11.2	2.759	114	6.58	1.47	16.0798	2372.03
10/15/2007	13:48:48	1521	18.46	29.382	6.9	2.785	113	6.58	1.46	15.9975	2368.66
10/15/2007	13:51:38	1691	18.67	29.387	8.8	2.759	112	6.58	1.45	15.9115	2383.45
10/15/2007	13:54:27	1860	18.49	29.384	4.3	2.759	112	6.58	1.48	16.2198	2374.94
10/15/2007	13:57:16	2029	18.54	29.39	0.4	2.785	112	6.58	1.45	15.9534	2373.84
10/15/2007	14:00:04	2197	18.58	29.393	8.8	2.759	110	6.58	1.45	15.8994	2369.89
10/15/2007	14:02:54	2367	18.56	29.399	8.6	2.759	109	6.58	1.44	15.7922	2371.04
10/15/2007	14:05:43	2536	18.48	29.402	13.7	2.785	107	6.58	1.45	15.8642	2362.59
10/15/2007	14:08:33	2706	18.59	29.399	4.4	2.759	106	6.58	1.42	15.6263	2367.06
10/15/2007	14:11:22	2875	18.47	29.398	5.9	2.785	107	6.58	1.44	15.775	2361.38
10/15/2007	14:14:10	3043	18.46	29.396	4.8	2.785	105	6.58	1.43	15.6332	2362.44
10/15/2007	14:16:59	3212	18.44	29.397	10.4	2.785	105	6.58	1.42	15.4924	2350.65
10/15/2007	14:19:49	3382	18.47	29.399	21.3	2.759	104	6.58	1.42	15.5937	2358.96
10/15/2007	14:22:38	3551	18.35	29.399	19.7	2.759	104	6.58	1.42	15.475	2350.54
10/15/2007	14:25:27	3720	18.5	29.399	19	2.759	104	6.58	1.4	15.3021	2357.15



Troll 9000

10/16/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Chris Decioccio  
Company Name URS Corporation  
Project Name Hartbird Groundwater Sampling - 21561445.00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 40 [ft]  
Pump placement from TOC 33.38 [ft]

**Well Information:**

Well Id HMW-28  
Well diameter 2 [in]  
Well total depth 36.02 [ft]  
Depth to top of screen 24.67 [ft]  
Screen length 176.4 [in]  
Depth to Water 31.38 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 295.54 [mL]  
Calculated Sample Rate 119 [sec]  
Sample rate 119 [sec]  
Stabilized drawdown 31.4 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	14:33:30	17.27	6.57	1037.54	49.80	0.73	84.57	
	14:35:34	17.17	6.57	1032.71	47.76	0.72	83.91	
	14:37:37	17.11	6.57	1029.44	61.96	0.72	83.83	
	14:39:40	17.11	6.57	1027.94	59.15	0.71	83.99	
	14:41:43	17.11	6.57	1026.44	62.15	0.70	84.33	
Variance in last 3 readings	14:37:37	-0.06	0.00	-3.27	14.20	-0.01	-0.08	
	14:39:40	0.00	0.00	-1.50	-2.81	0.00	0.16	
	14:41:43	0.00	0.00	-1.50	3.00	-0.01	0.34	

**Notes:** Turbidity >10 NTU

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-28A-10-16-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Chris Decioccio
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-28

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	36.02 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.67 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	31.38 [ft]
Pump Level (TOC):	33.38 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	31.4 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	119 [sec]
Actual Measurement Interval:	119 [sec]

Start date/time:	10/16/2007	14:02:43													
End date/time:	10/16/2007	14:42:38													
Total Time:	0:39:55														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.57	0	84.57	-0.98	0.73	0.02			1037.54	8.09	49.8	-40.68	6:28:48	0.07	0.606597
3	6.57	0	83.91	-0.67	0.72	0			1032.71	-4.82	47.76	-2.04	4:04:48	-0.1	0.608032
2	6.57	0	83.83	-0.08	0.72	-0.01			1029.44	-3.27	61.96	14.2	2:38:24	-0.06	0.609456
1	6.57	0	83.99	0.16	0.71	0			1027.94	-1.5	59.15	-2.81	2:38:24	0	0.61088
0	6.57	0	84.33	0.34	0.7	-0.01			1026.44	-1.5	62.15	3	2:38:24	0	0.612303

pH Min:	6.57
pH Max:	6.57
ORP Min:	83.83
ORP Max:	84.57
DO Min:	0.7
DO Max:	0.73
RDO Min:	
RDO Max:	
Cond Min:	1026.44
Cond Max:	1037.54
Turb Min:	47.76
Turb Max:	62.15
Temp Min:	17.11
Temp Max:	17.27

Notes:	Turbidity >10 NTU	
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.463298611
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-28A-10-16-2007.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45405	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39371	0.585219907
Test started on:	39371	0.585219907
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	20	

TOTAL DATA SAMPLES	20
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSiemens/cm Actual Conductivity
10/16/2007	14:02:43	0	17.82	29.498	47.5	2.733	83	6.62	4.94	52.9831	992.41
10/16/2007	14:04:45	122	17.57	29.493	46.2	2.733	85	6.6	4.64	49.4797	995.22
10/16/2007	14:06:48	245	17.46	29.492	35.1	2.759	87	6.59	4.4	46.8603	1000.65
10/16/2007	14:08:53	370	17.45	29.491	36.9	2.733	88	6.58	4.17	44.391	1005.42
10/16/2007	14:10:55	492	17.45	29.49	31.9	2.707	88	6.58	3.96	42.1188	1010.23
10/16/2007	14:12:58	615	17.39	29.489	29.1	2.733	89	6.58	3.76	39.9338	1013.14
10/16/2007	14:15:01	738	17.34	29.488	30.1	2.733	89	6.57	3.57	37.8934	1015.09
10/16/2007	14:17:04	861	17.21	29.49	30.9	2.681	90	6.57	3.39	35.8495	1020.98
10/16/2007	14:19:09	986	17.17	29.489	30.9	2.733	90	6.57	3.24	34.2656	1024.2
10/16/2007	14:21:11	1108	17.14	29.489	35	2.733	90	6.57	3.07	32.4418	1024.95
10/16/2007	14:23:14	1231	17.18	29.488	36.9	2.707	89	6.57	2.89	30.618	1024.95
10/16/2007	14:25:17	1354	17.17	29.488	54.1	2.707	88	6.57	2.76	29.1603	1026.94
10/16/2007	14:27:21	1478	17.2	29.489	67.9	2.785	87	6.57	0.84	8.9082	1026.45
10/16/2007	14:29:25	1602	17.13	29.489	76.3	2.759	86	6.57	0.73	7.6916	1026.45
10/16/2007	14:31:27	1724	17.2	29.488	90.5	2.785	86	6.57	0.71	7.5195	1029.45
10/16/2007	14:33:30	1847	17.27	29.487	49.8	2.759	85	6.57	0.73	7.6989	1037.54
10/16/2007	14:35:34	1971	17.17	29.483	47.8	2.785	84	6.57	0.72	7.657	1032.71
10/16/2007	14:37:37	2094	17.11	29.482	62	2.733	84	6.57	0.72	7.5571	1029.44
10/16/2007	14:39:40	2217	17.11	29.483	59.2	2.733	84	6.57	0.71	7.5143	1027.94
10/16/2007	14:41:43	2340	17.11	29.484	62.1	2.811	84	6.57	0.7	7.4341	1026.44

**Troll 9000**

10/16/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name B HIGGINS, S DALE  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445.00106**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 40 [ft]  
Pump placement from TOC 31.2 [ft]

**Well Information:**

Well Id HMW-29  
Well diameter 2 [in]  
Well total depth 34.55 [ft]  
Depth to top of screen 24.86 [ft]  
Screen length 176.4 [in]  
Depth to Water 29.28 [ft]

**Pumping information:**

Final pumping rate 215 [mL/min]  
Flowcell volume 295.54 [mL]  
Calculated Sample Rate 83 [sec]  
Sample rate 83 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
					+/-3 %	+/-10 %		
Last 5 Readings	12:06:28	16.86	6.63	1059.35	19.17	0.87	-4.85	
	12:07:54	16.78	6.62	1059.88	21.54	0.84	-6.43	
	12:09:19	16.83	6.63	1063.08	16.96	0.82	-8.14	
	12:10:46	16.81	6.62	1067.38	17.98	0.84	-9.55	
	12:12:12	16.81	6.62	1070.08	18.02	0.79	-10.92	
Variance in last 3 readings	12:09:19	0.05	0.00	3.20	-4.58	-0.02	-1.71	
	12:10:46	-0.03	0.00	4.30	1.02	0.02	-1.41	
	12:12:12	0.00	0.00	2.70	0.04	-0.05	-1.37	

**Notes:** Turbidity >10.0 NTU

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-28-10-16-2007.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	B HIGGINS, S DALE		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-29		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	OED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	34.55 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.86 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.28 [ft]
Pump Level (TOC):	31.2 [ft]

Final Pumping Rate:	215 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	83 [sec]
Actual Measurement Interval:	83 [sec]

Start date/time:	10/16/2007	11:43:36													
End date/time:	10/16/2007	12:12:56													
Total Time:	0:29:20														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO []	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.63	0	-4.85	-1.58	0.87	-0.18			1059.35	2.38	19.17	-6	20:38:24	0.04	0.504491
3	6.62	0	-6.43	-1.58	0.84	-0.03			1059.88	0.53	21.54	2.37	18:43:12	-0.07	0.505486
2	6.63	0	-8.14	-1.71	0.82	-0.02			1063.08	3.2	16.96	-4.56	19:55:12	0.05	0.50847
1	6.62	0	-9.55	-1.41	0.84	0.02			1067.38	4.3	17.98	1.02	19:26:24	-0.03	0.507477
0	6.62	0	-10.92	-1.37	0.79	-0.05			1070.08	2.7	18.02	0.04	19:26:24	0	0.508472

pH Min:	6.62
pH Max:	6.63
ORP Min:	-10.92
ORP Max:	-4.85
DO Min:	0.79
DO Max:	0.87
RDO Min:	
RDO Max:	
Cond Min:	1059.35
Cond Max:	1070.08
Turb Min:	16.96
Turb Max:	21.54
Temp Min:	16.78
Temp Max:	16.86

Notes:	Turbility >10.0 NTU	
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.462928241
Report from file:	...Hartford Groundwater Sampling - 21561445.00108-HWG-HMW-28-10-16-2007.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45405	
Firmware Version:	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39371	0.488611111
Test started on:	39371	0.488611111
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	21	

TOTAL DATA SAMPLES	21
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
10/16/2007	11:43:36	0	16.82	29.534	108.9	2.811	80	6.66	5.42	56.8781	1046.77
10/16/2007	11:45:02	86	16.91	29.534	89.9	2.811	63	6.66	5.14	54.0352	1048.33
10/16/2007	11:46:26	170	16.92	29.533	73.3	2.811	51	6.65	4.91	51.5914	1047.81
10/16/2007	11:47:53	257	16.85	29.533	72.6	2.811	40	6.65	4.71	49.4591	1046.25
10/16/2007	11:49:19	343	16.98	29.531	77.2	2.785	32	6.65	4.5	47.3101	1046.51
10/16/2007	11:50:45	429	16.91	29.53	59.8	2.811	26	6.64	4.33	45.5128	1044.96
10/16/2007	11:52:11	515	16.93	29.529	58	2.811	20	6.64	4.13	43.4263	1046.51
10/16/2007	11:53:36	600	16.9	29.527	61	2.733	16	6.64	3.98	41.8398	1048.84
10/16/2007	11:55:02	686	16.86	29.526	47.3	2.811	13	6.64	3.81	40.0313	1046.76
10/16/2007	11:56:27	771	16.92	29.525	42.1	2.785	10	6.64	3.68	38.6668	1050.14
10/16/2007	11:57:54	858	16.91	29.524	47.9	2.811	7	6.63	3.51	36.931	1048.06
10/16/2007	11:59:18	942	16.9	29.523	34.4	2.837	5	6.63	3.4	35.7495	1047.8
10/16/2007	12:00:45	1029	16.89	29.521	26.1	2.811	2	6.63	3.29	34.5566	1051.45
10/16/2007	12:02:11	1115	16.99	29.521	30.8	2.811	0	6.63	3.08	32.462	1058.03
10/16/2007	12:03:37	1201	16.84	29.52	34.3	2.759	-1	6.63	1.56	16.4001	1057.23
10/16/2007	12:05:03	1287	16.82	29.52	25.2	2.837	-3	6.63	1.05	11.0229	1056.97
10/16/2007	12:06:28	1372	16.86	29.52	19.2	2.837	-5	6.63	0.87	9.1395	1059.35
10/16/2007	12:07:54	1458	16.78	29.519	21.5	2.811	-6	6.62	0.84	8.8133	1059.88
10/16/2007	12:09:19	1543	16.83	29.52	17	2.811	-8	6.63	0.82	8.5655	1063.08
10/16/2007	12:10:46	1630	16.81	29.519	18	2.785	-10	6.62	0.84	8.7709	1067.38
10/16/2007	12:12:12	1716	16.81	29.518	18	2.785	-11	6.62	0.79	8.2629	1070.08

**Troll 9000**

10/16/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name Cory Yates  
Company Name URS Corporation  
Project Name Harford Groundwater Sampling - 21561445.00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 47 [ft]  
Pump placement from TOC 34.54 [ft]

**Well Information:**

Well Id HMW-38C  
Well diameter 2 [in]  
Well total depth 42.2 [ft]  
Depth to top of screen 32 [ft]  
Screen length 116.4 [in]  
Depth to Water 32.54 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 326.78 [mL]  
Calculated Sample Rate 131 [sec]  
Sample rate 131 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	15:25:40	19.00	6.29	1217.36	41.93	0.71	-70.73	
	15:27:55	18.82	6.29	1210.33	28.37	0.72	-70.62	
	15:30:10	18.78	6.31	1212.91	25.81	0.74	-73.30	
	15:32:26	18.97	6.29	1212.91	22.98	0.70	-71.97	
	15:34:43	19.19	6.27	1217.76	27.02	0.70	-69.83	
Variance in last 3 readings		15:30:10	-0.04	0.02	2.58	-2.56	0.02	-2.68
		15:32:26	0.19	-0.02	0.01	-2.83	-0.03	1.33
		15:34:43	0.22	-0.02	4.84	4.04	0.00	2.14

**Notes:** Turbidity did not stabilize to below 10 NTUs

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-38C-10-16-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Cory Yates
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-38C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	47 [ft]
Well Depth:	42.2 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	32 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	32.54 [ft]
Pump Level (TOC):	34.54 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (209.8 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	326.78 [mL]
Actual Total Volume:	326.78 [mL]
Calculated Measurement Interval:	131 [sec]
Actual Measurement Interval:	131 [sec]

Start date/time:	10/16/2007	14:33:39													
End date/time:	10/16/2007	15:35:40													
Total Time:	1:02:01														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [ ]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.29	0.01	-70.73	-1.27	0.71	0			1217.36	7.1	41.93	1.26	0:00:00	0.08	0.642824
3	6.29	0	-70.62	0.11	0.72	0.01			1210.33	-7.04	28.37	-13.56	19:40:48	-0.18	0.644387
2	6.31	0.02	-73.3	-2.68	0.74	0.02			1212.91	2.58	25.81	-2.56	18:43:12	-0.04	0.645949
1	6.29	-0.02	-71.97	1.33	0.7	-0.03			1212.91	0.01	22.98	-2.83	23:16:48	0.19	0.647523
0	6.27	-0.02	-69.83	2.14	0.7	0			1217.76	4.84	27.02	4.04	4:33:36	0.22	0.649109

pH Min:	6.27
pH Max:	6.31
ORP Min:	-73.3
ORP Max:	-69.83
DO Min.	0.7
DO Max:	0.74
RDO Min:	
RDO Max:	
Cond Min:	1210.33
Cond Max:	1217.76
Turb Min:	22.98
Turb Max:	41.93
Temp Min:	18.78
Temp Max:	19.19

Notes:	Turbidity did not stabilize to below 10 NTUs
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.436724537
Report from file:	...Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-38C-10-16-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45368
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39371 0.606701389
Test started on:	39371 0.606701389
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	28

TOTAL DATA SAMPLES	28
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity
10/16/2007	14:33:39	0	19.11	29.383	23.1	2.811	-84	6.47	1.01	11.1411	1219.55
10/16/2007	14:35:54	135	18.73	29.381	22.5	2.837	-82	6.45	0.87	9.5336	1207.68
10/16/2007	14:38:11	272	18.7	29.379	41.2	2.811	-80	6.42	0.82	8.9985	1203.87
10/16/2007	14:40:26	407	19	29.38	43.1	2.837	-79	6.4	0.74	8.1602	1213.74
10/16/2007	14:42:41	542	19.06	29.378	26.7	2.837	-78	6.39	0.72	7.9741	1214.06
10/16/2007	14:44:57	678	18.68	29.377	38.4	2.811	-77	6.38	0.74	8.1097	1207.32
10/16/2007	14:47:14	815	18.57	29.376	27.6	2.837	-76	6.36	0.72	7.8298	1201.92
10/16/2007	14:49:29	950	18.75	29.376	34.9	2.785	-75	6.35	0.69	7.6081	1209.2
10/16/2007	14:51:44	1085	19.06	29.375	33.9	2.837	-75	6.35	0.68	7.525	1218.2
10/16/2007	14:54:01	1222	19.01	29.374	29.5	2.837	-76	6.35	0.67	7.3761	1232.64
10/16/2007	14:56:16	1357	19.34	29.375	27.8	2.837	-75	6.35	0.68	7.5985	1226.39
10/16/2007	14:58:31	1492	19.21	29.375	23.9	2.811	-72	6.32	0.68	7.5722	1224.13
10/16/2007	15:00:47	1628	18.91	29.376	29.7	2.785	-74	6.34	0.71	7.7647	1212.83
10/16/2007	15:03:04	1765	18.86	29.376	31	2.811	-73	6.32	0.7	7.7239	1210.64
10/16/2007	15:05:18	1899	18.5	29.374	36.5	2.811	-72	6.31	0.73	7.9984	1200.82
10/16/2007	15:07:34	2035	18.61	29.37	40.9	2.837	-71	6.3	0.71	7.794	1203.33
10/16/2007	15:09:51	2172	18.88	29.372	27.5	2.863	-71	6.31	0.74	8.119	1208.38
10/16/2007	15:12:05	2306	18.69	29.372	38.4	2.785	-71	6.3	0.75	8.168	1206.14
10/16/2007	15:14:21	2442	18.76	29.372	42.2	2.785	-73	6.31	0.72	7.8783	1205.51
10/16/2007	15:16:36	2577	18.57	29.372	55.4	2.785	-73	6.31	0.73	7.9305	1202.03
10/16/2007	15:18:53	2714	18.61	29.372	41.9	2.837	-70	6.28	0.72	7.8848	1202.66
10/16/2007	15:21:08	2849	18.63	29.373	30.3	2.863	-70	6.28	0.71	7.8062	1207.08
10/16/2007	15:23:23	2984	18.92	29.374	40.7	2.863	-69	6.28	0.7	7.7593	1210.26
10/16/2007	15:25:40	3121	19	29.374	41.9	2.811	-71	6.29	0.71	7.7795	1217.36
10/16/2007	15:27:55	3256	18.82	29.374	28.4	2.837	-71	6.29	0.72	7.9063	1210.33
10/16/2007	15:30:10	3391	18.78	29.371	25.8	2.863	-73	6.31	0.74	8.0921	1212.91
10/16/2007	15:32:26	3527	18.97	29.37	23	2.785	-72	6.29	0.7	7.7388	1212.91
10/16/2007	15:34:43	3664	19.19	29.37	27	2.837	-70	6.27	0.7	7.7484	1217.76

**Troll 9000**

10/15/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445 00106

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 42 [ft]  
Pump placement from TOC 38.9 [ft]

**Well Information:**

Well Id HMW-39C  
Well diameter 2 [in]  
Well total depth 42 [ft]  
Depth to top of screen 31.73 [ft]  
Screen length 116.4 [in]  
Depth to Water 28.32 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 304.46 [mL]  
Calculated Sample Rate 122 [sec]  
Sample rate 122 [sec]  
Stabilized drawdown 0.07 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
					+/-0.1	+/-0.1	+/-0.3	+/-10
Last 5 Readings	9:31:55	15.22	7.01	1668.35	14.81	1.01	-99.05	
	9:34:02	15.24	7.01	1667.19	16.35	1.03	-99.61	
	9:36:08	15.22	7.01	1664.12	18.00	1.09	-100.42	
	9:38:14	15.23	7.01	1665.66	19.69	1.10	-101.06	
	9:40:20	15.27	7.01	1664.50	18.06	1.10	-101.49	
Variance in last 3 readings	9:36:08	-0.01	0.00	-3.07	1.65	0.06	-0.81	
	9:38:14	0.01	0.00	1.53	1.68	0.01	-0.64	
	9:40:20	0.04	0.00	-1.15	-1.63	0.00	-0.42	

Notes: Turb &gt; 10 ntu

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-39C-10-15-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Nathan McNurien		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-39C		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro		
Tubing Type:	Polyethylene		
Tubing Diam:	0.17 [in]		
Tubing Length:	42 [ft]		
Well Depth:	42 [ft]		
Well Diam:	2 [in]		
Screen Len:	116.4 [in]		
Screen Depth:	31.73 [ft]		
Pump Inlet Depth:	0 [in]		
Depth to Water:	28.32 [ft]		
Pump Level (TOC):	38.9 [ft]		

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0.07 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (187.5 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	304.46 [mL]
Actual Total Volume:	304.46 [mL]
Calculated Measurement Interval:	122 [sec]
Actual Measurement Interval:	122 [sec]

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [ ]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	7.01	0	-99.05	-0.94	1.01	-0.17			1668.35	0.39	14.81	0.2	5.16:48	-0.01	0.397164
3	7.01	0	-99.61	-0.56	1.03	0.02			1667.19	-1.15	16.35	1.54	5.45:36	0.02	0.398634
2	7.01	0	-100.42	-0.81	1.09	0.06			1664.12	-3.07	18	1.65	5.16:48	-0.01	0.400093
1	7.01	0	-101.06	-0.64	1.1	0.01			1665.66	1.53	19.69	1.68	5.31:12	0.01	0.401551
0	7.01	0	-101.49	-0.42	1.1	0			1664.5	-1.15	18.06	-1.63	6.28:48	0.04	0.403009

pH Min:	7.01
pH Max:	7.01
ORP Min:	-101.49
ORP Max:	-99.05
DO Min:	1.01
DO Max:	1.1
RDO Min:	
RDO Max:	
Cond Min:	1664.12
Cond Max:	1668.35
Turb Min:	14.81
Turb Max:	19.69
Temp Min:	15.22
Temp Max:	15.27

Notes:	Turb > 10 ntu	
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.463981481
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-39C-10-15-2007.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45405	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39370	0.369178241
Test started on:	39370	0.369178241
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	25	

TOTAL DATA SAMPLES	25
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[45]		
			Celsius	Temperature Inches Hg	Barometric NTU	Battery Volts	ORP millivolts	pH	Conductivity microSiemens/cm	Actual Conductivity	
10/15/2007	8:51:37 AM	0	15.42	29.563	26.3	2.863	25	6.72	1705.35		
10/15/2007	8:52:26 AM	49	15.38	29.563	26.4	2.837	5	6.78	1707.37		
10/15/2007	8:54:03 AM	146	15.33	29.562	19.5	2.837	-22	6.85	1703.75		
10/15/2007	8:56:10 AM	273	15.3	29.561	17.2	2.837	-42	6.9	1704.95		
10/15/2007	8:58:16 AM	399	15.3	29.559	13.4	2.811	-55	6.93	1705.35		
10/15/2007	9:00:22 AM	525	15.27	29.557	11.3	2.863	-64	6.95	1704.95		
10/15/2007	9:02:29 AM	652	15.26	29.557	12.2	2.837	-70	6.96	1706.56		
10/15/2007	9:04:35 AM	778	15.31	29.557	10.7	2.863	-75	6.97	1703.75		
10/15/2007	9:06:41	904	15.26	29.556	12.4	2.863	-79	6.98	1698.54		
10/15/2007	9:08:47	1030	15.3	29.555	14.6	2.863	-82	6.99	1696.15		
10/15/2007	9:10:54	1157	15.26	29.553	15.5	2.837	-85	6.99	1685.07		
10/15/2007	9:13:00	1283	15.24	29.55	16.8	2.863	-87	6.99	1681.15		
10/15/2007	9:15:06	1409	15.26	29.548	21.6	2.837	-89	6.99	1678.81		
10/15/2007	9:17:12	1535	15.3	29.549	24.4	2.837	-91	7	1676.09		
10/15/2007	9:19:18	1661	15.25	29.548	13.1	2.785	-93	7	1673.76		
10/15/2007	9:21:24	1787	15.25	29.545	14.8	2.785	-94	7	1672.59		
10/15/2007	9:23:30	1913	15.24	29.541	17	2.811	-95	7	1668.73		
10/15/2007	9:25:37	2040	15.21	29.54	18.9	2.837	-96	7	1668.35		
10/15/2007	9:27:43	2166	15.23	29.539	20.8	2.811	-97	7.01	1667.96		
10/15/2007	9:29:49	2292	15.23	29.537	14.6	2.863	-98	7.01	1667.96		
10/15/2007	9:31.55	2418	15.22	29.538	14.8	2.811	-99	7.01	1668.35		
10/15/2007	9:34:02	2545	15.24	29.537	16.4	2.785	-100	7.01	1667.19		
10/15/2007	9:36:08	2671	15.22	29.534	18	2.837	-100	7.01	1664.12		
10/15/2007	9:38:14	2797	15.23	29.533	19.7	2.837	-101	7.01	1665.66		
10/15/2007	9:40:20	2923	15.27	29.531	18.1	2.837	-101	7.01	1664.5		

**Troll 9000**

10/10/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 37 [ft]  
Pump placement from TOC 29.1 [ft]

**Well Information:**

Well Id HMW-40C  
Well diameter 2 [in]  
Well total depth 39 [ft]  
Depth to top of screen 23.49 [ft]  
Screen length 176.4 [in]  
Depth to Water 27.1 [ft]

**Pumping information:**

Final pumping rate 350 [mL/min]  
Flowcell volume 282.15 [mL]  
Calculated Sample Rate 49 [sec]  
Sample rate 49 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	12:16:16	15.67	6.52	595.89	63.90	0.63	94.25	
	12:17:06	15.67	6.49	593.37	61.55	0.66	89.81	
	12:17:56	15.60	6.51	595.40	55.47	0.63	85.15	
	12:18:47	15.70	6.52	596.96	51.48	0.64	81.00	
	12:19:38	15.71	6.51	596.71	50.52	0.62	77.75	
Variance in last 3 readings		12:17:56	-0.07	0.02	2.03	-6.08	-0.03	-4.66
		12:18:47	0.10	0.02	1.55	-3.99	0.01	-4.15
		12:19:38	0.01	-0.02	-0.25	-0.96	-0.02	-3.25

**Notes:** Turbidity > 10 ntu

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00108-HWG-HMW-40C-10-10-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Nathan McNurlen		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-40C		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 ( $\mu$ S/cm)	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 (NTU)	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro		
Tubing Type:	Polyethylene		
Tubing Diam:	0.17 [in]		
Tubing Length:	37 [ft]		
Well Depth:	39 [ft]		
Well Diam:	2 [in]		
Screen Len:	176.4 [in]		
Screen Depth:	23.49 [ft]		
Pump Inlet Depth:	0 [in]		
Depth to Water:	27.1 [ft]		
Pump Level (TOC):	29.1 [ft]		

Final Pumping Rate:	350 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (165.1 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	282.15 [mL]
Actual Total Volume:	282.15 [mL]
Calculated Measurement Interval:	49 [sec]
Actual Measurement Interval:	49 [sec]

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb (NTU)	Variance	Temp [C]	Variance	Time
4	6.52	-0.06	94.25	-3.2	0.63	0			595.89	-0.9	63.9	-7.5	16:04:48	-0.04	0.511296
3	6.49	-0.03	89.81	-4.44	0.66	0.03			593.37	-2.52	61.55	-2.35	16:04:48	0	0.511875
2	6.51	0.02	85.15	-4.66	0.63	-0.03			595.4	2.03	55.47	-6.08	14:24:00	-0.07	0.512454
1	6.52	0.02	81	-4.15	0.64	0.01			596.96	1.55	51.48	-3.99	16:48:00	0.1	0.513044
0	6.51	-0.02	77.75	-3.25	0.62	-0.02			596.71	-0.25	50.52	-0.96	17:02:24	0.01	0.513634

pH Min:	6.49
pH Max:	6.52
ORP Min:	77.75
ORP Max:	94.25
DO Min:	0.62
DO Max:	0.66
RDO Min:	
RDO Max:	
Cond Min:	593.37
Cond Max:	596.96
Turb Min:	50.52
Turb Max:	63.9
Temp Min:	15.6
Temp Max:	15.71

Notes:	Turbidity > 10 ntu	
<b>Device Record:</b>		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.464351852
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-40C-10-10-2007.flb.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45405	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39365	0.501365741
Test started on:	39365	0.501365741
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	22	

TOTAL DATA SAMPLES	22
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat
										microSiemens/cm
										Actual Conductivity
10/10/2007	12:01:58	0	15.8	29.658	111.4	2.963	212	6.61	4.2	42.8967 590.4
10/10/2007	12:02:48	50	15.75	29.657	109.2	2.889	204	6.58	4.1	41.7886 590.24
10/10/2007	12:03:39	101	15.74	29.657	107.2	2.915	195	6.54	3.93	39.9956 588.8
10/10/2007	12:04:28	150	15.68	29.655	104	2.889	185	6.51	3.73	37.9959 588.95
10/10/2007	12:05:19	201	15.66	29.654	92.8	2.915	175	6.5	3.59	36.474 588.87
10/10/2007	12:06:10	252	15.62	29.652	99.7	2.915	165	6.49	3.49	35.4429 589.11
10/10/2007	12:07:01	303	15.63	29.653	93.6	2.915	156	6.49	3.43	34.8423 589.43
10/10/2007	12:07:50	352	15.59	29.651	92.9	2.863	147	6.49	3.29	33.3789 588.95
10/10/2007	12:08:41	403	15.58	29.651	94	2.915	140	6.48	3.21	32.578 589.43
10/10/2007	12:09:31	453	15.6	29.653	59	2.915	133	6.49	2.53	25.7519 589.75
10/10/2007	12:10:22	504	15.59	29.653	59.3	2.915	128	6.49	1.06	10.7776 590.31
10/10/2007	12:11:13	555	15.58	29.653	91.9	2.915	122	6.5	0.81	8.1879 590.79
10/10/2007	12:12:04	606	15.66	29.653	118.1	2.889	116	6.52	0.72	7.2753 592.4
10/10/2007	12:12:53	655	15.69	29.655	89.3	2.915	111	6.54	0.68	6.8776 593.93
10/10/2007	12:13:44	706	15.69	29.654	78.8	2.863	107	6.52	0.7	7.1048 593.69
10/10/2007	12:14:34	756	15.81	29.656	68	2.915	103	6.51	0.66	6.7696 596.62
10/10/2007	12:15:26	808	15.72	29.657	71.4	2.915	97	6.57	0.63	6.3686 596.79
10/10/2007	12:16:16	858	15.67	29.655	63.9	2.941	94	6.52	0.63	6.3824 595.89
10/10/2007	12:17:06	908	15.67	29.653	61.6	2.915	90	6.49	0.66	6.6964 593.37
10/10/2007	12:17:56	958	15.6	29.652	55.5	2.915	85	6.51	0.63	6.4064 595.4
10/10/2007	12:18:47	1009	15.7	29.651	51.5	2.889	81	6.52	0.64	6.5025 596.96
10/10/2007	12:19:38	1060	15.71	29.652	50.5	2.863	78	6.51	0.62	6.3079 596.71



Troll 9000

10/11/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Chris Decioccio  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 47 [ft]  
Pump placement from TOC 33.05 [ft]

**Well Information:**

Well Id HMW-43C  
Well diameter 2 [in]  
Well total depth 41 [ft]  
Depth to top of screen 30.77 [ft]  
Screen length 116.4 [in]  
Depth to Water 31.05 [ft]

**Pumping information:**

Final pumping rate 160 [mL/min]  
Flowcell volume 326.78 [mL]  
Calculated Sample Rate 123 [sec]  
Sample rate 123 [sec]  
Stabilized drawdown 30.05 [in]

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	10:31:47	16.75	6.60	910.93	171.83	0.96	-40.67
	10:33:54	16.89	6.60	911.30	109.19	0.95	-41.08
	10:36:01	16.79	6.60	905.96	66.68	0.96	-40.99
	10:38:09	16.87	6.61	910.60	65.38	0.94	-42.01
	10:40:16	16.64	6.62	903.14	65.04	0.95	-43.29
Variance in last 3 readings	10:36:01	-0.09	0.00	-5.35	-42.51	0.01	0.09
	10:38:09	0.08	0.01	4.65	-1.30	-0.02	-1.02
	10:40:16	-0.24	0.01	-7.46	-0.35	0.01	-1.28

**Notes:** Turbidity > 10 ntu

**INSTRUCTIONS:** This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-43C-10-11-2007.xls. To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Chris Decioccio
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-43C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	47 [ft]
Well Depth:	41 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	30.77 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	31.05 [ft]
Pump Level (TOC):	33.05 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	30.05 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (209.8 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	326.78 [mL]
Actual Total Volume:	326.78 [mL]
Calculated Measurement Interval:	123 [sec]
Actual Measurement Interval:	123 [sec]

Start date/time:	10/11/2007	9:53:35																																																																																																
End date/time:	10/11/2007	10:40:55																																																																																																
Total Time:	0:47:20																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.6</td> <td>0</td> <td>-40.67</td> <td>0.61</td> <td>0.96</td> <td>0.01</td> <td></td> <td></td> <td>910.93</td> <td>-1.24</td> <td>171.83</td> <td>39.5</td> <td>18:00:00</td> <td>-0.2</td> <td>0.438738</td> </tr> <tr> <td>3</td> <td>6.6</td> <td>0</td> <td>-41.08</td> <td>-0.42</td> <td>0.95</td> <td>-0.01</td> <td></td> <td></td> <td>911.3</td> <td>0.37</td> <td>109.19</td> <td>-62.65</td> <td>21:21:36</td> <td>0.14</td> <td>0.440208</td> </tr> <tr> <td>2</td> <td>6.6</td> <td>0</td> <td>-40.99</td> <td>0.09</td> <td>0.96</td> <td>0.01</td> <td></td> <td></td> <td>905.96</td> <td>-5.35</td> <td>66.68</td> <td>-42.51</td> <td>18:57:36</td> <td>-0.09</td> <td>0.441678</td> </tr> <tr> <td>1</td> <td>6.61</td> <td>0.01</td> <td>-42.01</td> <td>-1.02</td> <td>0.94</td> <td>-0.02</td> <td></td> <td></td> <td>910.6</td> <td>4.65</td> <td>65.38</td> <td>-1.3</td> <td>20:52:48</td> <td>0.08</td> <td>0.44316</td> </tr> <tr> <td>0</td> <td>6.62</td> <td>0.01</td> <td>-43.29</td> <td>-1.28</td> <td>0.95</td> <td>0.01</td> <td></td> <td></td> <td>903.14</td> <td>-7.46</td> <td>65.04</td> <td>-0.35</td> <td>15:21:36</td> <td>-0.24</td> <td>0.44463</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.6	0	-40.67	0.61	0.96	0.01			910.93	-1.24	171.83	39.5	18:00:00	-0.2	0.438738	3	6.6	0	-41.08	-0.42	0.95	-0.01			911.3	0.37	109.19	-62.65	21:21:36	0.14	0.440208	2	6.6	0	-40.99	0.09	0.96	0.01			905.96	-5.35	66.68	-42.51	18:57:36	-0.09	0.441678	1	6.61	0.01	-42.01	-1.02	0.94	-0.02			910.6	4.65	65.38	-1.3	20:52:48	0.08	0.44316	0	6.62	0.01	-43.29	-1.28	0.95	0.01			903.14	-7.46	65.04	-0.35	15:21:36	-0.24	0.44463
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.6	0	-40.67	0.61	0.96	0.01			910.93	-1.24	171.83	39.5	18:00:00	-0.2	0.438738																																																																																			
3	6.6	0	-41.08	-0.42	0.95	-0.01			911.3	0.37	109.19	-62.65	21:21:36	0.14	0.440208																																																																																			
2	6.6	0	-40.99	0.09	0.96	0.01			905.96	-5.35	66.68	-42.51	18:57:36	-0.09	0.441678																																																																																			
1	6.61	0.01	-42.01	-1.02	0.94	-0.02			910.6	4.65	65.38	-1.3	20:52:48	0.08	0.44316																																																																																			
0	6.62	0.01	-43.29	-1.28	0.95	0.01			903.14	-7.46	65.04	-0.35	15:21:36	-0.24	0.44463																																																																																			

pH Min:	6.6
pH Max:	6.62
ORP Min:	-43.29
ORP Max:	-40.67
DO Min:	0.94
DO Max:	0.96
RDO Min:	
RDO Max:	
Cond Min:	903.14
Cond Max:	911.3
Turb Min:	65.04
Turb Max:	171.83
Temp Min:	16.64
Temp Max:	16.89

Notes:	Turbidity > 10 ntu	
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.437743056
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-43C-10-11-2007.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45368	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39366	0.412210648
Test started on:	39366	0.412210648
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	23	

TOTAL DATA SAMPLES	23
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]		Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity	microSiemens/cm
10/11/2007	9:53:35	0	16.88	29.565	23.9	2.863	-41	6.72	7.31	76.6297	929.5	
10/11/2007	9:55:42	127	16.65	29.566	19.5	2.915	-45	6.72	7.07	73.721	931.19	
10/11/2007	9:57:50	255	16.61	29.566	20.4	2.889	-48	6.71	6.85	71.3568	928.21	
10/11/2007	9:59:57	382	16.76	29.567	28.7	2.915	-47	6.69	6.54	68.3247	928.78	
10/11/2007	10:02:04	509	16.67	29.566	35.9	2.889	-48	6.69	6.37	66.4391	931.4	
10/11/2007	10:04:12	637	16.88	29.566	32.4	2.889	-47	6.67	6.09	63.8235	932.72	
10/11/2007	10:06:19	764	16.79	29.566	41.9	2.915	-45	6.65	6.01	62.8623	936.13	
10/11/2007	10:08:26	891	16.81	29.566	44.7	2.915	-44	6.64	5.91	61.8532	936.14	
10/11/2007	10:10:34	1019	16.64	29.567	49.8	2.863	-45	6.65	5.71	59.5827	926.03	
10/11/2007	10:12:41	1146	16.68	29.569	54	2.915	-45	6.65	5.49	57.3393	926.4	
10/11/2007	10:14:48	1273	16.72	29.568	60.4	2.889	-44	6.63	5.26	54.9346	917.95	
10/11/2007	10:16:56	1401	16.56	29.569	76.9	2.915	-43	6.62	5.1	53.1225	911.08	
10/11/2007	10:19:03	1528	16.68	29.569	105.6	2.863	-42	6.61	4.92	51.3733	916.13	
10/11/2007	10:21:10	1655	16.42	29.568	131.3	2.915	-43	6.62	1.36	14.157	911.8	
10/11/2007	10:23:17	1782	16.65	29.57	98	2.941	-42	6.61	1.07	11.1138	912.88	
10/11/2007	10:25:25	1910	16.67	29.57	94	2.863	-42	6.61	1.02	10.6178	908.59	
10/11/2007	10:27:32	2037	16.68	29.569	121.3	2.915	-42	6.61	0.96	10.0232	913.07	
10/11/2007	10:29:39	2164	16.94	29.57	132.3	2.915	-41	6.6	0.95	9.9694	912.18	
10/11/2007	10:31:47	2292	16.75	29.569	171.8	2.915	-41	6.6	0.96	10.0431	910.93	
10/11/2007	10:33:54	2419	16.89	29.569	109.2	2.915	-41	6.6	0.95	9.9998	911.3	
10/11/2007	10:36:01	2546	16.79	29.568	66.7	2.889	-41	6.6	0.96	10.07	905.96	
10/11/2007	10:38:09	2674	16.87	29.568	65.4	2.889	-42	6.61	0.94	9.8734	910.6	
10/11/2007	10:40:16	2801	16.64	29.568	65	2.915	-43	6.62	0.95	9.9546	903.14	

**Troll 9000**

10/17/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Chris Decioccio  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 40 [ft]  
Pump placement from TOC 34.15 [ft]

**Well Information:**

Well Id HMW-44C  
Well diameter 2 [in]  
Well total depth 42.5 [ft]  
Depth to top of screen 26.86 [ft]  
Screen length 178.8 [in]  
Depth to Water 32.15 [ft]

**Pumping information:**

Final pumping rate 180 [mL/min]  
Flowcell volume 295.54 [mL]  
Calculated Sample Rate 99 [sec]  
Sample rate 99 [sec]  
Stabilized drawdown 32.2 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	10:34:29	18.21	6.63	1029.99	7.85	4.04	-67.08	
	10:36:11	18.23	6.63	1032.96	13.41	3.53	-66.17	
	10:37:54	18.24	6.65	1034.45	7.38	4.47	-65.36	
	10:39:36	18.26	6.65	1036.20	7.19	4.42	-65.31	
	10:41:18	18.28	6.70	1038.20	2880.39	7.22	-66.84	
Variance in last 3 readings	10:37:54	0.01	0.02	1.49	-6.03	0.94	0.82	
	10:39:36	0.02	-0.01	1.75	-0.19	-0.05	0.05	
	10:41:18	0.02	0.05	2.00	2873.21	2.81	-1.53	

**Notes:** Used rotary pump.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-28-10-16-2007.flo. To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	B HIGGINS, S DALE		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-29		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	CED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	34.55 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	24.86 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.28 [ft]
Pump Level (TOC):	31.2 [ft]

Final Pumping Rate:	215 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	83 [sec]
Actual Measurement Interval:	83 [sec]

Start date/time:	10/16/2007	11:43:36													
End date/time:	10/16/2007	12:12:56													
Total Time:	0:29:20														
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb (NTU)	Variance	Temp (C)	Variance	Time
4	6.63	0	-4.85	-1.58	0.87	-0.18			1059.35	2.38	19.17	-.6	20:38:24	0.04	0.504491
3	6.62	0	-6.43	-1.58	0.84	-0.03			1059.88	0.53	21.54	2.37	18:43:12	-0.07	0.505486
2	6.63	0	-8.14	-1.71	0.82	-0.02			1063.08	3.2	16.96	-4.58	19:55:12	0.05	0.508471
1	6.62	0	-9.55	-1.41	0.84	0.02			1067.38	4.3	17.98	1.02	19:26:24	-0.03	0.507477
0	6.62	0	-10.92	-1.37	0.79	-0.05			1070.08	2.7	18.02	0.04	19:26:24	0	0.508472

pH Min:	6.62
pH Max:	6.63
ORP Min:	-10.92
ORP Max:	-4.85
DO Min:	0.79
DO Max:	0.87
RDO Min:	
RDO Max:	
Cond Min:	1059.35
Cond Max:	1070.08
Turb Min:	16.96
Turb Max:	21.54
Temp Min:	16.78
Temp Max:	16.86

Notes:	Turbidity >10.0 NTU	
<b>Device Record:</b>		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.462928241
Report from file:	\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-28-10-16-2007.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45405	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39371	0.488611111
Test started on:	39371	0.488611111
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	21	

TOTAL DATA SAMPLES	21
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]		Chan[3]		Chan[4]		Chan[5]		Chan[11]		Chan[12]		Chan[25]		Chan[45]	
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity	microSiemens/cm	Actual Conductivity	%Saturation	Conductivity			
10/16/2007	11:43:36	0	16.82	29.534	108.9	2.811	80	6.66	5.42	56.8781	1046.77							
10/16/2007	11:45:02	86	16.91	29.534	69.9	2.811	63	6.66	5.14	54.0352	1048.33							
10/16/2007	11:46:26	170	16.92	29.533	73.3	2.811	51	6.65	4.91	51.5914	1047.81							
10/16/2007	11:47:53	257	16.85	29.533	72.6	2.811	40	6.65	4.71	49.4591	1046.25							
10/16/2007	11:49:19	343	16.98	29.531	77.2	2.785	32	6.65	4.5	47.3101	1046.51							
10/16/2007	11:50:45	429	16.91	29.53	59.8	2.811	26	6.64	4.33	45.5128	1044.96							
10/16/2007	11:52:11	515	16.93	29.529	58	2.811	20	6.64	4.13	43.4263	1046.51							
10/16/2007	11:53:36	600	16.9	29.527	61	2.733	16	6.64	3.98	41.8398	1048.84							
10/16/2007	11:55:02	686	16.86	29.526	47.3	2.811	13	6.64	3.81	40.0313	1046.76							
10/16/2007	11:56:27	771	16.92	29.525	42.1	2.785	10	6.64	3.68	38.6668	1050.14							
10/16/2007	11:57:54	858	16.91	29.524	47.9	2.811	7	6.63	3.51	36.931	1048.06							
10/16/2007	11:59:18	942	16.9	29.523	34.4	2.837	5	6.63	3.4	35.7495	1047.8							
10/16/2007	12:00:45	1029	16.89	29.521	26.1	2.811	2	6.63	3.29	34.5566	1051.45							
10/16/2007	12:02:11	1115	16.89	29.521	30.8	2.811	0	6.63	3.08	32.462	1058.03							
10/16/2007	12:03:37	1201	16.84	29.52	34.3	2.759	-1	6.63	1.56	16.4001	1057.23							
10/16/2007	12:05:03	1287	16.82	29.52	25.2	2.837	-3	6.63	1.05	11.0229	1056.97							
10/16/2007	12:06:28	1372	16.86	29.52	19.2	2.837	-5	6.63	0.87	9.1395	1059.35							
10/16/2007	12:07:54	1458	16.78	29.519	21.5	2.811	-6	6.62	0.84	8.8133	1059.88							
10/16/2007	12:09:19	1543	16.83	29.52	17	2.811	-8	6.63	0.82	8.5655	1063.08							
10/16/2007	12:10:46	1630	16.81	29.519	18	2.785	-10	6.62	0.84	8.7709	1067.38							
10/16/2007	12:12:12	1716	16.81	29.518	18	2.785	-11	6.62	0.79	8.2629	1070.08							

**Troll 9000**

10/12/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name Cory Yates  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 51 [ft]  
Pump placement from TOC 47 [ft]

**Well Information:**

Well Id HMW-44D  
Well diameter 2 [in]  
Well total depth 50 [ft]  
Depth to top of screen 45 [ft]  
Screen length 60 [in]  
Depth to Water 32.24 [ft]

**Pumping information:**

Final pumping rate 180 [mL/min]  
Flowcell volume 344.64 [mL]  
Calculated Sample Rate 115 [sec]  
Sample rate 115 [sec]  
Stabilized drawdown 32.19 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	10:25:11	16.99	6.09	1050.47	333.37	0.82	-47.63	
	10:27:10	17.00	6.10	1050.93	278.03	0.93	-48.57	
	10:29:09	16.94	6.11	1050.48	266.17	0.89	-49.16	
	10:31:08	16.94	6.12	1051.40	323.71	0.86	-50.22	
	10:33:07	16.97	6.08	1051.63	508.19	0.83	-48.04	
Variance in last 3 readings		10:29:09	-0.06	0.01	-0.44	-11.86	-0.04	-0.59
		10:31:08	0.00	0.01	0.91	57.54	-0.04	-1.06
		10:33:07	0.03	-0.03	0.23	184.49	-0.03	2.19

**Notes:** Turbidity above 10 NTUs

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file.Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-44D-10-12-2007.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Cory Yates
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-44D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	51 [ft]
Well Depth:	50 [ft]
Well Diam:	2 [in]
Screen Len:	60 [in]
Screen Depth:	45 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water	32.24 [ft]
Pump Level (TOC):	47 [ft]

Final Pumping Rate:	180 [mL/min]
Stable Draw Down:	32.19 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (227.6 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	344.64 [mL]
Actual Total Volume:	344.64 [mL]
Calculated Measurement Interval:	115 [sec]
Actual Measurement Interval:	115 [sec]

Start date/time:	10/12/2007	9:31:38																																																																																																
End date/time:	10/12/2007	10:33:59																																																																																																
Total Time:	1:02:21																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [µS/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.09</td> <td>-0.01</td> <td>-47.63</td> <td>0.82</td> <td>0.82</td> <td>-0.04</td> <td></td> <td></td> <td>1050.47</td> <td>0.91</td> <td>333.37</td> <td>74.53</td> <td>23:45:36</td> <td>0.02</td> <td>0.434155</td> </tr> <tr> <td>3</td> <td>6.1</td> <td>0.01</td> <td>-48.57</td> <td>-0.94</td> <td>0.93</td> <td>0.12</td> <td></td> <td></td> <td>1050.93</td> <td>0.46</td> <td>278.03</td> <td>-55.34</td> <td>0:00:00</td> <td>0.01</td> <td>0.435532</td> </tr> <tr> <td>2</td> <td>6.11</td> <td>0.01</td> <td>-49.16</td> <td>-0.59</td> <td>0.89</td> <td>-0.04</td> <td></td> <td></td> <td>1050.48</td> <td>-0.44</td> <td>266.17</td> <td>-11.86</td> <td>22:33:36</td> <td>-0.06</td> <td>0.43691</td> </tr> <tr> <td>1</td> <td>6.12</td> <td>0.01</td> <td>-50.22</td> <td>-1.06</td> <td>0.86</td> <td>-0.04</td> <td></td> <td></td> <td>1051.4</td> <td>0.91</td> <td>323.71</td> <td>57.54</td> <td>22:33:36</td> <td>0</td> <td>0.438287</td> </tr> <tr> <td>0</td> <td>6.08</td> <td>-0.03</td> <td>-48.04</td> <td>2.19</td> <td>0.83</td> <td>-0.03</td> <td></td> <td></td> <td>1051.63</td> <td>0.23</td> <td>508.19</td> <td>184.49</td> <td>23:16:48</td> <td>0.03</td> <td>0.439664</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.09	-0.01	-47.63	0.82	0.82	-0.04			1050.47	0.91	333.37	74.53	23:45:36	0.02	0.434155	3	6.1	0.01	-48.57	-0.94	0.93	0.12			1050.93	0.46	278.03	-55.34	0:00:00	0.01	0.435532	2	6.11	0.01	-49.16	-0.59	0.89	-0.04			1050.48	-0.44	266.17	-11.86	22:33:36	-0.06	0.43691	1	6.12	0.01	-50.22	-1.06	0.86	-0.04			1051.4	0.91	323.71	57.54	22:33:36	0	0.438287	0	6.08	-0.03	-48.04	2.19	0.83	-0.03			1051.63	0.23	508.19	184.49	23:16:48	0.03	0.439664
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.09	-0.01	-47.63	0.82	0.82	-0.04			1050.47	0.91	333.37	74.53	23:45:36	0.02	0.434155																																																																																			
3	6.1	0.01	-48.57	-0.94	0.93	0.12			1050.93	0.46	278.03	-55.34	0:00:00	0.01	0.435532																																																																																			
2	6.11	0.01	-49.16	-0.59	0.89	-0.04			1050.48	-0.44	266.17	-11.86	22:33:36	-0.06	0.43691																																																																																			
1	6.12	0.01	-50.22	-1.06	0.86	-0.04			1051.4	0.91	323.71	57.54	22:33:36	0	0.438287																																																																																			
0	6.08	-0.03	-48.04	2.19	0.83	-0.03			1051.63	0.23	508.19	184.49	23:16:48	0.03	0.439664																																																																																			

pH Min:	6.08
pH Max:	6.12
ORP Min:	-50.22
ORP Max:	-47.63
DO Min:	0.82
DO Max:	0.93
RDO Min:	
RDO Max:	
Cond Min:	1050.47
Cond Max:	1051.63
Turb Min:	266.17
Turb Max:	508.19
Temp Min:	16.94
Temp Max:	17

Notes:	Turbidity above 10 NTUs
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.438483796
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-44D-10-12-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45368
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39367 0.396967593
Test started on:	39367 0.396967593
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	32

TOTAL DATA SAMPLES	32
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
10/12/2007	9:31:38	0	17.13	29.551	149.4	2.863	-60	6.26	0.9	9.5095	1061.72
10/12/2007	9:33:36	118	17.08	29.551	122.4	2.863	-58	6.22	0.85	8.9398	1059.88
10/12/2007	9:35:35	237	17.11	29.552	137	2.889	-56	6.21	0.85	8.9345	1059.2
10/12/2007	9:37:34	356	17.07	29.552	148.7	2.837	-56	6.21	0.87	9.1673	1058.29
10/12/2007	9:39:33	475	17.09	29.553	235.2	2.889	-52	6.16	0.86	9.0168	1056
10/12/2007	9:41:32	594	17.08	29.555	159.4	2.863	-52	6.17	0.87	9.1863	1055.55
10/12/2007	9:43:31	713	17.04	29.556	274.2	2.863	-53	6.17	0.84	8.8482	1055.1
10/12/2007	9:45:30	832	16.99	29.558	104.2	2.889	-53	6.17	0.88	9.2361	1054.65
10/12/2007	9:47:29	951	17.05	29.557	126.9	2.837	-51	6.15	0.86	9.0347	1051.7
10/12/2007	9:49:28	1070	17.06	29.555	139.3	2.889	-52	6.15	0.82	8.6683	1053.98
10/12/2007	9:51:27	1189	17	29.552	113	2.889	-51	6.13	0.86	9.0583	1051.72
10/12/2007	9:53:26	1308	17.07	29.553	183.2	2.889	-53	6.16	0.86	9.0408	1054.23
10/12/2007	9:55:25	1427	17.04	29.551	219.8	2.889	-53	6.16	0.86	9.0554	1053.55
10/12/2007	9:57:24	1546	17	29.552	7.9	2.889	-52	6.15	0.85	8.9227	1051.97
10/12/2007	9:59:23	1665	17.01	29.551	26.7	2.889	-51	6.14	0.89	9.3634	1051.98
10/12/2007	10:01:23	1785	16.93	29.549	76.3	2.863	-53	6.15	0.86	9.0602	1051.99
10/12/2007	10:03:23	1905	17.06	29.551	70.5	2.889	-53	6.15	0.86	9.0596	1051.54
10/12/2007	10:05:22	2024	17.04	29.552	151.3	2.863	-53	6.16	0.9	9.4732	1052.91
10/12/2007	10:07:21	2143	17.01	29.55	153.5	2.889	-52	6.16	0.87	9.1574	1052.93
10/12/2007	10:09:20	2262	17.01	29.55	94.4	2.863	-50	6.12	0.86	9.0485	1051.12
10/12/2007	10:11:19	2381	17.01	29.552	127.2	2.889	-50	6.13	0.86	9.0134	1051.58
10/12/2007	10:13:17	2499	16.99	29.554	178.7	2.889	-50	6.13	0.87	9.1319	1050.68
10/12/2007	10:15:16	2618	16.91	29.55	148.9	2.863	-50	6.12	0.86	9.0091	1050
10/12/2007	10:17:15	2737	16.91	29.551	145.5	2.915	-53	6.15	0.86	9.0483	1051.81
10/12/2007	10:19:14	2856	17	29.55	125.1	2.889	-50	6.12	0.86	9.0196	1049.78
10/12/2007	10:21:13	2975	16.97	29.55	150.3	2.837	-50	6.13	0.89	9.4003	1051.37
10/12/2007	10:23:12	3094	16.97	29.549	258.8	2.889	-48	6.1	0.86	8.9965	1049.56
10/12/2007	10:25:11	3213	16.99	29.548	333.4	2.915	-48	6.09	0.82	8.5849	1050.47
10/12/2007	10:27:10	3332	17	29.547	278	2.837	-49	6.1	0.93	9.8011	1050.93
10/12/2007	10:29:09	3451	16.94	29.545	266.2	2.889	-49	6.11	0.89	9.3823	1050.48
10/12/2007	10:31:08	3570	16.94	29.546	323.7	2.889	-50	6.12	0.86	9.0149	1051.4
10/12/2007	10:33:07	3689	16.97	29.546	508.2	2.915	-48	6.08	0.83	8.7133	1051.63

**Troll 9000**

10/17/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Cory Yates  
 Company Name URS Corporation  
 Project Name Hartford Groundwater Sampling - 21561445 00106  
 Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
 Tubing Type Polyethylene  
 Tubing Diameter 0.17 [in]  
 Tubing Length 40 [ft]  
 Pump placement from TOC 34.86 [ft]

**Well Information:**

Well Id HMW-47C  
 Well diameter 2 [in]  
 Well total depth 44.5 [ft]  
 Depth to top of screen 34.3 [ft]  
 Screen length 116.4 [in]  
 Depth to Water 32.86 [ft]

**Pumping information:**

Final pumping rate 175 [mL/min]  
 Flowcell volume 295.54 [mL]  
 Calculated Sample Rate 102 [sec]  
 Sample rate 102 [sec]  
 Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	14:28:25	16.78	6.20	1480.71	70.05	0.95	-53.01	
	14:30:11	16.80	6.20	1480.70	59.22	0.95	-54.68	
	14:31:56	16.90	6.21	1483.63	59.38	0.97	-56.44	
	14:33:41	16.78	6.23	1477.26	55.29	0.98	-58.79	
	14:35:28	16.82	6.24	1480.18	60.17	0.97	-60.21	
Variance in last 3 readings		14:31:56	0.10	0.01	2.93	0.16	0.02	-1.76
		14:33:41	-0.12	0.02	-6.37	-4.09	0.01	-2.36
		14:35:28	0.04	0.01	2.92	4.88	-0.01	-1.42

Notes: Parameters Stabilized

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file;Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-47C-10-17-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Cory Yates
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-47C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	44.5 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	34.3 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	32.86 [ft]
Pump Level (TOC):	34.86 [ft]

Final Pumping Rate:	175 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	102 [sec]
Actual Measurement Interval:	102 [sec]

Start date/time:	10/17/2007	13:46:12																																																																																																
End date/time:	10/17/2007	14:35:29																																																																																																
Total Time:	0:49:17																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.2</td> <td>0.01</td> <td>-53.01</td> <td>-2.06</td> <td>0.95</td> <td>-0.04</td> <td></td> <td></td> <td>1480.71</td> <td>-5.91</td> <td>70.05</td> <td>-5.67</td> <td>18:43:12</td> <td>-0.04</td> <td>0.603067</td> </tr> <tr> <td>3</td> <td>6.2</td> <td>0.01</td> <td>-54.68</td> <td>-1.67</td> <td>0.95</td> <td>0</td> <td></td> <td></td> <td>1480.7</td> <td>-0.01</td> <td>59.22</td> <td>-10.83</td> <td>19:12:00</td> <td>0.03</td> <td>0.604294</td> </tr> <tr> <td>2</td> <td>6.21</td> <td>0.01</td> <td>-56.44</td> <td>-1.76</td> <td>0.97</td> <td>0.02</td> <td></td> <td></td> <td>1483.63</td> <td>2.93</td> <td>59.38</td> <td>0.16</td> <td>21:36:00</td> <td>0.1</td> <td>0.605509</td> </tr> <tr> <td>1</td> <td>6.23</td> <td>0.02</td> <td>-58.79</td> <td>-2.36</td> <td>0.98</td> <td>0.01</td> <td></td> <td></td> <td>1477.26</td> <td>-6.37</td> <td>55.29</td> <td>-4.09</td> <td>18:43:12</td> <td>-0.12</td> <td>0.606725</td> </tr> <tr> <td>0</td> <td>6.24</td> <td>0.01</td> <td>-60.21</td> <td>-1.42</td> <td>0.97</td> <td>-0.01</td> <td></td> <td></td> <td>1480.18</td> <td>2.92</td> <td>60.17</td> <td>4.88</td> <td>19:40:48</td> <td>0.04</td> <td>0.607963</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.2	0.01	-53.01	-2.06	0.95	-0.04			1480.71	-5.91	70.05	-5.67	18:43:12	-0.04	0.603067	3	6.2	0.01	-54.68	-1.67	0.95	0			1480.7	-0.01	59.22	-10.83	19:12:00	0.03	0.604294	2	6.21	0.01	-56.44	-1.76	0.97	0.02			1483.63	2.93	59.38	0.16	21:36:00	0.1	0.605509	1	6.23	0.02	-58.79	-2.36	0.98	0.01			1477.26	-6.37	55.29	-4.09	18:43:12	-0.12	0.606725	0	6.24	0.01	-60.21	-1.42	0.97	-0.01			1480.18	2.92	60.17	4.88	19:40:48	0.04	0.607963
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.2	0.01	-53.01	-2.06	0.95	-0.04			1480.71	-5.91	70.05	-5.67	18:43:12	-0.04	0.603067																																																																																			
3	6.2	0.01	-54.68	-1.67	0.95	0			1480.7	-0.01	59.22	-10.83	19:12:00	0.03	0.604294																																																																																			
2	6.21	0.01	-56.44	-1.76	0.97	0.02			1483.63	2.93	59.38	0.16	21:36:00	0.1	0.605509																																																																																			
1	6.23	0.02	-58.79	-2.36	0.98	0.01			1477.26	-6.37	55.29	-4.09	18:43:12	-0.12	0.606725																																																																																			
0	6.24	0.01	-60.21	-1.42	0.97	-0.01			1480.18	2.92	60.17	4.88	19:40:48	0.04	0.607963																																																																																			

pH Min:	6.2
pH Max:	6.24
ORP Min:	-60.21
ORP Max:	-53.01
DO Min:	0.95
DO Max:	0.98
RDO Min:	
RDO Max:	
Cond Min:	1477.26
Cond Max:	1483.63
Turb Min:	55.29
Turb Max:	70.05
Temp Min:	16.78
Temp Max:	16.9

Notes:	Parameters Stabilized	
<b>Device Record:</b>		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.439178241
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-47C-10-17-2007.flb.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45368	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39372	0.57375
Test started on:	39372	0.57375
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	29	

TOTAL DATA SAMPLES	29
Channel number [1] Measurement type:	Temperature
Channel name:	
Channel number [3] Measurement type:	Barometric Pressure
Channel name:	
Channel number [4] Measurement type:	Turbidity
Channel name:	
Channel number [5] Measurement type:	Battery Voltage
Channel name:	
Channel number [11] Measurement type:	ORP
Channel name:	
Channel number [12] Measurement type:	pH
Channel name:	
Channel number [25] Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25] Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45] Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]		Chan[3]		Chan[4]		Chan[5]		Chan[11]		Chan[12]		Chan[25]		Chan[25]		Chan[45]	
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity					microSiemens/cm	Actual Conductivity	%Saturation	Conductivity	
10/17/2007	13:46:12	0	17.17	29.234	9.6	2.837	-80	6.37	1.22	13,0875	1519.25									
10/17/2007	13:47:56	104	17.2	29.234	7.7	2.785	-81	6.37	1.12	11,9834	1505.48									
10/17/2007	13:49:42	210	16.98	29.234	9.9	2.837	-81	6.36	1.1	11,7396	1487.49									
10/17/2007	13:51:28	316	17.22	29.231	10.1	2.811	-82	6.37	1.07	11,4104	1493.96									
10/17/2007	13:53:14	422	17.05	29.229	14.5	2.837	-82	6.36	1.08	11,4808	1492.98									
10/17/2007	13:54:59	527	17.05	29.227	19.9	2.785	-83	6.36	1.01	10,8163	1496.48									
10/17/2007	13:56:44	632	17	29.225	24.3	2.785	-83	6.36	1.02	10,8878	1501.01									
10/17/2007	13:58:31	739	16.99	29.223	33.2	2.785	-83	6.36	1.05	11,1814	1487.08									
10/17/2007	14:00:16	844	17.04	29.222	52.8	2.811	-83	6.36	1.02	10,8307	1492.54									
10/17/2007	14:02:01	949	17.01	29.22	65.1	2.837	-83	6.35	1	10,6554	1493.05									
10/17/2007	14:03:46	1054	17.25	29.218	76.5	2.811	-83	6.35	0.99	10,5734	1504.1									
10/17/2007	14:05:33	1161	18.39	29.217	3.9	2.837	-99	6.81	9.24	100,7421	1.35									
10/17/2007	14:07:18	1266	18.96	29.216	3.5	2.811	-95	7.04	11.35	125,2977	1.35									
10/17/2007	14:09:04	1372	19.28	29.214	3.3	2.837	-84	7.1	11.43	126,9396	1.35									
10/17/2007	14:10:48	1476	19.53	29.213	3	2.811	-75	7.22	11.5	128,3831	1.35									
10/17/2007	14:12:34	1582	19.84	29.212	2.7	2.811	-58	7.22	11.34	127,3853	1.35									
10/17/2007	14:14:21	1689	17.46	29.214	193.2	2.811	-24	6.05	3.86	41.55	1537.71									
10/17/2007	14:16:06	1794	17.1	29.212	140.2	2.837	-21	5.99	1.43	15,3251	1528.79									
10/17/2007	14:17:51	1899	17	29.214	135.2	2.837	-28	6.03	1.16	12,3568	1518.43									
10/17/2007	14:19:36	2004	16.95	29.214	110.4	2.811	-33	6.06	1.07	11,3662	1509.72									
10/17/2007	14:21:23	2111	16.96	29.212	111.6	2.811	-37	6.09	1.03	10,9297	1509.7									
10/17/2007	14:23:08	2216	16.91	29.211	84.8	2.837	-43	6.13	1.02	10,8011	1499.58									
10/17/2007	14:24:53	2321	16.83	29.209	82.2	2.837	-47	6.16	1.01	10,7772	1494.07									
10/17/2007	14:26:39	2427	16.82	29.208	75.7	2.811	-51	6.19	0.99	10,5383	1486.62									
10/17/2007	14:28:25	2533	16.78	29.205	70	2.811	-53	6.2	0.95	10,1162	1480.71									
10/17/2007	14:30:11	2639	16.8	29.204	59.2	2.811	-55	6.2	0.95	10,1053	1480.7									
10/17/2007	14:31:56	2744	16.9	29.2	59.4	2.837	-56	6.21	0.97	10,3123	1483.63									
10/17/2007	14:33:41	2849	16.78	29.2	55.3	2.837	-59	6.23	0.98	10,3515	1477.26									
10/17/2007	14:35:28	2956	16.82	29.198	60.2	2.837	-60	6.24	0.97	10,2858	1480.18									



Troll 9000

10/17/07

Low-Flow System  
ISI Low-Flow Log**Project Information:**

Operator Name Cory Yates  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 48 [ft]  
Pump placement from TOC 33.39 [ft]

**Well Information:**

Well Id HMW-48D  
Well diameter 2 [in]  
Well total depth 53 [ft]  
Depth to top of screen 42.64 [ft]  
Screen length 116.4 [in]  
Depth to Water 31.39 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 331.25 [mL]  
Calculated Sample Rate 133 [sec]  
Sample rate 133 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	11:23:14	16.99	6.65	911.82	56.98	1.01	-108.71	
	11:25:32	17.15	6.65	915.35	47.99	0.95	-108.33	
	11:27:49	17.14	6.66	916.85	46.29	1.00	-108.55	
	11:30:07	16.84	6.65	911.62	52.15	0.98	-108.21	
	11:30:49	16.78	6.65	911.61	304.37	1.00	-108.17	
Variance in last 3 readings		11:27:49	-0.01	0.00	1.49	-1.70	0.05	-0.22
		11:30:07	-0.29	-0.01	-5.23	5.86	-0.02	0.34
		11:30:49	-0.06	0.00	0.00	252.21	0.03	0.04

**Notes:** Parameters did not stabilize to below 10 NTUs.

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file, Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-48D-10-17-2007.flw. To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Cory Yates		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-48D		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	OED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	48 [ft]
Well Depth:	53 [ft]
Well Diam:	2 [in]
Screen Len:	116.4 [in]
Screen Depth:	42.64 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	31.39 [ft]
Pump Level (TOC):	33.39 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (214.2 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	331.25 [mL]
Actual Total Volume:	331.25 [mL]
Calculated Measurement Interval:	133 [sec]
Actual Measurement Interval:	133 [sec]

Start date/time:	10/17/2007	10:25:52																																																																																																
End date/time:	10/17/2007	11:30:54																																																																																																
Total Time:	1:05:02																																																																																																	
<hr/>																																																																																																		
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Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [l]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb (NTU)	Variance	Temp [C]	Variance	Time																																																																																			
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pH Min:	6.65
pH Max:	6.66
ORP Min:	-108.71
ORP Max:	-108.17
DO Min:	0.95
DO Max:	1.01
RDO Min:	
RDO Max:	
Cond Min:	911.61
Cond Max:	916.85
Turb Min:	46.29
Turb Max:	304.37
Temp Min:	16.78
Temp Max:	17.15

Notes:	Parameters did not stabilize to below 10 NTUs.	
<b>Device Record:</b>		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.439976852
Report from file:	\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-48D-10-17-2007.flb.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45368	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39372	0.43462963
Test started on:	39372	0.43462963
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	30	

TOTAL DATA SAMPLES	30
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity
10/17/2007	10:25:52	0	16.93	29.348	54.4	2.837	-103	6.65	1.09	11.5115	903.86
10/17/2007	10:28:09	137	16.99	29.347	70.1	2.837	-104	6.65	1.1	11.5909	904.6
10/17/2007	10:30:28	274	17.3	29.347	56.7	2.811	-106	6.66	1.06	11.2431	911.98
10/17/2007	10:32:44	412	16.9	29.347	97.1	2.811	-106	6.66	1.08	11.4009	904.44
10/17/2007	10:35:02	550	16.88	29.347	61.8	2.837	-107	6.67	1.04	10.9871	903.18
10/17/2007	10:37:20	688	16.88	29.342	84.4	2.811	-108	6.67	1.03	10.8492	904.28
10/17/2007	10:39:37	825	17.15	29.336	125	2.837	-108	6.67	1.04	11.089	911.1
10/17/2007	10:41:56	964	17.45	29.34	84.9	2.837	-109	6.67	1.02	10.9383	919.34
10/17/2007	10:44:13	1101	17.27	29.343	122.4	2.837	-109	6.66	1.04	11.0653	916.92
10/17/2007	10:46:30	1238	17.19	29.342	134.5	2.837	-109	6.66	1.07	11.3413	914.69
10/17/2007	10:48:48	1376	17.14	29.342	119.5	2.837	-109	6.66	1.06	11.2683	914.51
10/17/2007	10:51:06	1514	17.04	29.343	119.7	2.837	-109	6.67	1.02	10.7658	913.39
10/17/2007	10:53:24	1652	16.92	29.344	170.2	2.811	-110	6.67	1.03	10.9254	912.09
10/17/2007	10:55:41	1789	16.87	29.345	119.1	2.837	-110	6.67	1	10.6037	906.55
10/17/2007	10:57:59	1927	17.04	29.343	340.7	2.811	-110	6.68	0.91	9.6866	910.41
10/17/2007	11:00:17	2065	17.07	29.341	66.9	2.785	-110	6.68	1.03	10.9537	911.33
10/17/2007	11:02:35	2203	17	29.336	58.7	2.785	-109	6.66	1	10.5486	910.95
10/17/2007	11:04:52	2340	16.81	29.338	93.2	2.837	-109	6.66	1.01	10.6099	907.98
10/17/2007	11:07:10 AM	2478	16.86	29.337	97.6	2.837	-109	6.66	0.98	10.3971	904.49
10/17/2007	11:09:28 AM	2616	16.84	29.333	141.3	2.837	-109	6.66	0.99	10.4444	904.84
10/17/2007	11:11:45 AM	2753	17.16	29.326	41.3	2.785	-110	6.67	0.97	10.3293	913.51
10/17/2007	11:14:03 AM	2891	17.28	29.326	83.1	2.785	-110	6.66	0.97	10.3821	915.75
10/17/2007	11:16:21 AM	3029	17.72	29.329	173.2	2.837	-109	6.66	1.07	11.4427	1.35
10/17/2007	11:18:39 AM	3167	17.48	29.336	101.4	2.837	-108	6.65	0.98	10.492	921.21
10/17/2007	11:20:56 AM	3304	16.94	29.333	35.8	2.837	-108	6.65	1.03	10.8761	910.16
10/17/2007	11:23:14 AM	3442	16.99	29.332	57	2.811	-109	6.65	1.01	10.6648	911.82
10/17/2007	11:25:32 AM	3580	17.15	29.333	48	2.837	-108	6.65	0.95	10.1287	915.35
10/17/2007	11:27:49 AM	3717	17.14	29.333	46.3	2.811	-109	6.66	1	10.6047	916.85
10/17/2007	11:30:07 AM	3855	16.84	29.334	52.2	2.785	-108	6.65	0.98	10.3252	911.62
10/17/2007	11:30:49 AM	3897	16.78	29.334	304.4	2.785	-108	6.65	1	10.5862	911.61



Troll 9000

10/16/07

Low-Flow System

ISI Low-Flow Log

**Project Information:**

Operator Name shan wolfe  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 47 [ft]  
Pump placement from TOC 0 [ft]

**Well Information:**

Well Id HMW-49D  
Well diameter 2 [in]  
Well total depth 51 [ft]  
Depth to top of screen 40.72 [ft]  
Screen length 115.2 [in]  
Depth to Water 32.77 [ft]

**Pumping information:**

Final pumping rate 160 [mL/min]  
Flowcell volume 326.78 [mL]  
Calculated Sample Rate 123 [sec]  
Sample rate 123 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings	Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
		+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10	
Last 5 Readings	11:45:11	18.10	6.48	899.86	48.91	0.72	-97.69
	11:47:18	18.25	6.48	905.02	88.35	0.69	-97.56
	11:49:26	18.53	6.48	915.52	99.02	0.66	-97.98
	11:51:34	18.51	6.47	912.97	92.56	0.68	-97.12
	11:53:40	18.70	6.49	917.73	90.66	0.83	-97.50
Variance in last 3 readings	11:49:26	0.28	0.00	10.50	10.67	-0.03	-0.42
	11:51:34	-0.02	-0.01	-2.55	-6.46	0.02	0.86
	11:53:40	0.19	0.01	4.76	-1.90	0.15	-0.38

**Notes:** parameter stabilized

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-49D-10-16-2007.flw To Generate a report insert a new sheet based on a sheet template. See Sheet Template and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	shan wolfe
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-49D

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	47 [ft]
Well Depth:	51 [ft]
Well Diam:	2 [in]
Screen Len:	115.2 [in]
Screen Depth:	40.72 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	32.77 [ft]
Pump Level (TOC):	0 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (209.8 mL) - pH, ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	326.78 [mL]
Actual Total Volume:	326.78 [mL]
Calculated Measurement Interval:	123 [sec]
Actual Measurement Interval:	123 [sec]

Start date/time:	10/16/2007	11:04:51																																																																																																
End date/time:	10/16/2007	11:54:28																																																																																																
Total Time:	0:49:37																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [µS/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.48</td> <td>0.01</td> <td>-97.69</td> <td>-0.04</td> <td>0.72</td> <td>0.01</td> <td></td> <td></td> <td>899.86</td> <td>-4.62</td> <td>48.91</td> <td>9.19</td> <td>2:24:00</td> <td>-0.25</td> <td>0.489711</td> </tr> <tr> <td>3</td> <td>6.48</td> <td>-0.01</td> <td>-97.56</td> <td>0.13</td> <td>0.69</td> <td>-0.03</td> <td></td> <td></td> <td>905.02</td> <td>5.16</td> <td>88.35</td> <td>39.44</td> <td>6:00:00</td> <td>0.15</td> <td>0.491181</td> </tr> <tr> <td>2</td> <td>6.48</td> <td>0</td> <td>-97.98</td> <td>-0.42</td> <td>0.66</td> <td>-0.03</td> <td></td> <td></td> <td>915.52</td> <td>10.5</td> <td>99.02</td> <td>10.67</td> <td>12:43:12</td> <td>0.28</td> <td>0.492662</td> </tr> <tr> <td>1</td> <td>6.47</td> <td>-0.01</td> <td>-97.12</td> <td>0.86</td> <td>0.68</td> <td>0.02</td> <td></td> <td></td> <td>912.97</td> <td>-2.55</td> <td>92.56</td> <td>-6.46</td> <td>12:14:24</td> <td>-0.02</td> <td>0.494144</td> </tr> <tr> <td>0</td> <td>6.49</td> <td>0.01</td> <td>-97.5</td> <td>-0.38</td> <td>0.83</td> <td>0.15</td> <td></td> <td></td> <td>917.73</td> <td>4.76</td> <td>90.66</td> <td>-1.9</td> <td>16:48:00</td> <td>0.19</td> <td>0.495602</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.48	0.01	-97.69	-0.04	0.72	0.01			899.86	-4.62	48.91	9.19	2:24:00	-0.25	0.489711	3	6.48	-0.01	-97.56	0.13	0.69	-0.03			905.02	5.16	88.35	39.44	6:00:00	0.15	0.491181	2	6.48	0	-97.98	-0.42	0.66	-0.03			915.52	10.5	99.02	10.67	12:43:12	0.28	0.492662	1	6.47	-0.01	-97.12	0.86	0.68	0.02			912.97	-2.55	92.56	-6.46	12:14:24	-0.02	0.494144	0	6.49	0.01	-97.5	-0.38	0.83	0.15			917.73	4.76	90.66	-1.9	16:48:00	0.19	0.495602
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.48	0.01	-97.69	-0.04	0.72	0.01			899.86	-4.62	48.91	9.19	2:24:00	-0.25	0.489711																																																																																			
3	6.48	-0.01	-97.56	0.13	0.69	-0.03			905.02	5.16	88.35	39.44	6:00:00	0.15	0.491181																																																																																			
2	6.48	0	-97.98	-0.42	0.66	-0.03			915.52	10.5	99.02	10.67	12:43:12	0.28	0.492662																																																																																			
1	6.47	-0.01	-97.12	0.86	0.68	0.02			912.97	-2.55	92.56	-6.46	12:14:24	-0.02	0.494144																																																																																			
0	6.49	0.01	-97.5	-0.38	0.83	0.15			917.73	4.76	90.66	-1.9	16:48:00	0.19	0.495602																																																																																			

pH Min:	6.47
pH Max:	6.49
ORP Min:	-97.98
ORP Max:	-97.12
DO Min:	0.66
DO Max:	0.83
RDO Min:	
RDO Max:	
Cond Min:	899.86
Cond Max:	917.73
Turb Min:	48.91
Turb Max:	99.02
Temp Min:	18.1
Temp Max:	18.7

Notes:	parameter stabilized
<b>Device Record:</b>	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.440231481
Report from file:	...Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-49D-10-16-2007.flb.bin
Win-Situ® Version	4.57.5.0
Serial number:	45368
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39371 0.461701389
Test started on:	39371 0.461701389
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if data value exceeds:	0 Celsius
Number of data samples:	24

TOTAL DATA SAMPLES	24
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
10/16/2007	11:04:51	0	18.87	29.431	14.4	2.785	-107	6.5	1.06	11.6771	869.51
10/16/2007	11:06:58	127	18.27	29.431	23.5	2.811	-103	6.5	0.81	8.7639	872.67
10/16/2007	11:09:05	254	18.43	29.432	15.2	2.785	-100	6.49	0.75	8.1009	890.65
10/16/2007	11:11:14	383	18.17	29.429	14	2.785	-99	6.49	0.72	7.8008	884.64
10/16/2007	11:13:21	510	18.17	29.428	21.7	2.785	-99	6.49	0.71	7.636	892.24
10/16/2007	11:15:28	637	18.37	29.425	19.9	2.785	-98	6.49	0.7	7.5946	897.86
10/16/2007	11:17:35	764	18.22	29.422	22.7	2.785	-97	6.49	0.68	7.3659	895.77
10/16/2007	11:19:42	891	17.65	29.421	32.7	2.837	-98	6.49	0.69	7.3724	887.44
10/16/2007	11:21:50	1019	17.73	29.42	51.8	2.837	-97	6.48	0.68	7.308	890.18
10/16/2007	11:23:58	1147	17.87	29.422	39	2.811	-98	6.49	0.65	6.9479	894.15
10/16/2007	11:26:05	1274	18.04	29.417	52.8	2.837	-97	6.48	0.68	7.353	895.71
10/16/2007	11:28:12	1401	18.09	29.42	43.7	2.837	-98	6.48	0.68	7.3717	897.64
10/16/2007	11:30:19	1528	18.19	29.419	62.6	2.837	-98	6.48	0.69	7.4529	896.77
10/16/2007	11:32:26	1655	18.82	29.42	41.6	2.837	-97	6.48	0.65	7.131	909.43
10/16/2007	11:34:34	1783	18.61	29.418	35.4	2.811	-97	6.48	0.7	7.6354	907.1
10/16/2007	11:36:42	1911	18.55	29.417	29.2	2.811	-97	6.47	0.68	7.4208	906.41
10/16/2007	11:38:50	2039	18.2	29.417	27.9	2.837	-97	6.48	0.7	7.5885	899.83
10/16/2007	11:40:56	2165	18.27	29.415	47.8	2.811	-97	6.47	0.7	7.6128	903.75
10/16/2007	11:43:03	2292	18.35	29.415	39.7	2.811	-98	6.48	0.72	7.7681	904.47
10/16/2007	11:45:11	2420	18.1	29.416	48.9	2.837	-98	6.48	0.72	7.8017	899.86
10/16/2007	11:47:18	2547	18.25	29.418	88.4	2.837	-98	6.48	0.69	7.4852	905.02
10/16/2007	11:49:26	2675	18.53	29.417	99	2.837	-98	6.48	0.66	7.1795	915.52
10/16/2007	11:51:34	2803	18.51	29.413	92.6	2.811	-97	6.47	0.68	7.3953	912.97
10/16/2007	11:53:40	2929	18.7	29.413	90.7	2.785	-97	6.49	0.83	9.1118	917.73



Troll 9000

10/11/07

Low-Flow System

ISI Low-Flow Log

**Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00105  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 30 [ft]  
Pump placement from TOC 25.38 [ft]

**Well Information:**

Well Id HMW-50A  
Well diameter 2 [in]  
Well total depth 29.88 [ft]  
Depth to top of screen 20.14 [ft]  
Screen length 111.6 [in]  
Depth to Water 23 [ft]

**Pumping information:**

Final pumping rate 200 [mL/min]  
Flowcell volume 250.9 [mL]  
Calculated Sample Rate 76 [sec]  
Sample rate 76 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings	Time	Temp [C]	pH [pH]	Cond [ $\mu\text{S}/\text{cm}$ ]	Turb [NTU]	DO [mg/L]	ORP [mV]
	+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10		
Last 5 Readings	9:33:14	15.28	6.62	1255.42	26.48	0.67	236.31
	9:34:32	15.31	6.63	1253.95	27.46	0.66	235.12
	9:35:50	15.32	6.62	1253.95	39.87	0.67	233.80
	9:37:10	15.25	6.63	1253.58	43.68	0.65	232.49
	9:38:28	15.20	6.63	1252.48	41.58	0.64	231.21
Variance in last 3 readings	9:35:50	0.01	0.00	0.00	12.41	0.01	-1.32
	9:37:10	-0.07	0.01	-0.37	3.81	-0.02	-1.32
	9:38:28	-0.05	0.00	-1.10	-2.10	-0.01	-1.28

**Notes:** Turb > 10 NTU

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file; Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-50A-10-11-2007.flw. To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®.

Operator Name:	Nathan McNurlen
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	HMW-50A

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	30 [ft]
Well Depth:	29.88 [ft]
Well Diam:	2 [in]
Screen Len:	111.6 [in]
Screen Depth:	20.14 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	23 [ft]
Pump Level (TOC):	25.38 [ft]

Final Pumping Rate:	200 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (133.9 mL) - pH, ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	250.9 [mL]
Actual Total Volume:	250.9 [mL]
Calculated Measurement Interval:	76 [sec]
Actual Measurement Interval:	76 [sec]

Start date/time:	10/11/2007	9:17:32																																																																																																
End date/time:	10/11/2007	9:39:31																																																																																																
Total Time:	0:21:59																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr><th>Reading #</th><th>pH [pH]</th><th>Variance</th><th>ORP [mV]</th><th>Variance</th><th>DO [mg/L]</th><th>Variance</th><th>RDO [I]</th><th>Variance</th><th>Cond [µS/cm]</th><th>Variance</th><th>Turb [NTU]</th><th>Variance</th><th>Temp [C]</th><th>Variance</th><th>Time</th></tr> </thead> <tbody> <tr><td>4</td><td>6.62</td><td>0</td><td>236.31</td><td>-1.28</td><td>0.67</td><td>-0.02</td><td></td><td></td><td>1255.42</td><td>-0.37</td><td>26.48</td><td>-3.82</td><td>6:43:12</td><td>0.01</td><td>0.398079</td></tr> <tr><td>3</td><td>6.63</td><td>0</td><td>235.12</td><td>-1.19</td><td>0.66</td><td>-0.01</td><td></td><td></td><td>1253.95</td><td>-1.47</td><td>27.46</td><td>0.97</td><td>7:26:24</td><td>0.03</td><td>0.398981</td></tr> <tr><td>2</td><td>6.62</td><td>0</td><td>233.8</td><td>-1.32</td><td>0.67</td><td>-0.01</td><td></td><td></td><td>1253.95</td><td>0</td><td>39.87</td><td>12.41</td><td>7:40:48</td><td>0.01</td><td>0.399884</td></tr> <tr><td>1</td><td>6.63</td><td>0.01</td><td>232.49</td><td>-1.32</td><td>0.65</td><td>-0.02</td><td></td><td></td><td>1253.58</td><td>-0.37</td><td>43.68</td><td>3.81</td><td>6:00:00</td><td>-0.07</td><td>0.400081</td></tr> <tr><td>0</td><td>6.63</td><td>0</td><td>231.21</td><td>-1.28</td><td>0.64</td><td>-0.01</td><td></td><td></td><td>1252.48</td><td>-1.1</td><td>41.58</td><td>-2.1</td><td>4:48:00</td><td>-0.05</td><td>0.401713</td></tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.62	0	236.31	-1.28	0.67	-0.02			1255.42	-0.37	26.48	-3.82	6:43:12	0.01	0.398079	3	6.63	0	235.12	-1.19	0.66	-0.01			1253.95	-1.47	27.46	0.97	7:26:24	0.03	0.398981	2	6.62	0	233.8	-1.32	0.67	-0.01			1253.95	0	39.87	12.41	7:40:48	0.01	0.399884	1	6.63	0.01	232.49	-1.32	0.65	-0.02			1253.58	-0.37	43.68	3.81	6:00:00	-0.07	0.400081	0	6.63	0	231.21	-1.28	0.64	-0.01			1252.48	-1.1	41.58	-2.1	4:48:00	-0.05	0.401713
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.62	0	236.31	-1.28	0.67	-0.02			1255.42	-0.37	26.48	-3.82	6:43:12	0.01	0.398079																																																																																			
3	6.63	0	235.12	-1.19	0.66	-0.01			1253.95	-1.47	27.46	0.97	7:26:24	0.03	0.398981																																																																																			
2	6.62	0	233.8	-1.32	0.67	-0.01			1253.95	0	39.87	12.41	7:40:48	0.01	0.399884																																																																																			
1	6.63	0.01	232.49	-1.32	0.65	-0.02			1253.58	-0.37	43.68	3.81	6:00:00	-0.07	0.400081																																																																																			
0	6.63	0	231.21	-1.28	0.64	-0.01			1252.48	-1.1	41.58	-2.1	4:48:00	-0.05	0.401713																																																																																			

pH Min:	6.62
ORP Max:	6.63
ORP Min:	231.21
ORP Max:	236.31
DO Min:	0.64
DO Max:	0.67
RDO Min:	
RDO Max:	
Cond Min:	1252.48
Cond Max:	1255.42
Turb Min:	26.48
Turb Max:	43.68
Temp Min:	15.2
Temp Max:	15.32

Notes:	Turb > 10 NTU
<b>Device Record:</b>	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.465625
Report from file:	...Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-50A-10-11-2007.flb.bin
Win-Situ® Version	4.57.5.0
Serial number:	45405
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.387175926
Test started on:	39366 0.387175926
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	17

TOTAL DATA SAMPLES	17
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1] Temperature	Chan[3] Barometric	Chan[4] Turbidity	Chan[5] Battery	Chan[11] ORP	Chan[12] pH	Chan[25] Clark DO	Chan[25] Clark DO Sat	Chan[45] Conductivity
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSieme ns/cm Actual Conductivity
10/11/2007	9:17:32	0	15	29.676	120.5	2.915	250	6.59	1.88	18.9194	1238.04
10/11/2007	9:18:50	78	15.12	29.677	104.7	2.915	249	6.59	1.56	15.6723	1244.5
10/11/2007	9:20:08	156	15.13	29.676	94.8	2.889	248	6.6	1.33	13.4173	1247.03
10/11/2007	9:21:28	236	15.09	29.675	75.2	2.915	246	6.6	1.15	11.5511	1245.58
10/11/2007	9:22:45	313	15.19	29.675	67.7	2.915	246	6.6	1.01	10.1522	1251.4
10/11/2007	9:24:05	393	15.15	29.674	57.7	2.915	244	6.61	0.91	9.1567	1252.49
10/11/2007	9:25:22	470	15.13	29.672	52.6	2.915	243	6.61	0.83	8.4129	1252.13
10/11/2007	9:26:41	549	15.17	29.673	41.1	2.915	242	6.61	0.78	7.8414	1252.49
10/11/2007	9:27:59	627	15.09	29.672	34.4	2.889	241	6.62	0.73	7.3383	1248.48
10/11/2007	9:29:18	706	15.13	29.672	39.8	2.889	240	6.62	0.72	7.2088	1248.48
10/11/2007	9:30:37	785	15.2	29.672	33.5	2.889	239	6.62	0.71	7.152	1251.76
10/11/2007	9:31:55	863	15.27	29.672	30.3	2.837	238	6.62	0.69	6.975	1255.79
10/11/2007	9:33:14	942	15.28	29.671	26.5	2.837	236	6.62	0.67	6.8166	1255.42
10/11/2007	9:34:32	1020	15.31	29.671	27.5	2.915	235	6.63	0.66	6.6941	1253.95
10/11/2007	9:35:50	1098	15.32	29.672	39.9	2.915	234	6.62	0.67	6.817	1253.95
10/11/2007	9:37:10	1178	15.25	29.67	43.7	2.863	232	6.63	0.65	6.5575	1253.58
10/11/2007	9:38:28	1256	15.2	29.668	41.6	2.863	231	6.63	0.64	6.4515	1252.48

**Troll 9000**

10/11/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 46 [ft]  
Pump placement from TOC 38.27 [ft]

**Well Information:**

Well Id HMW-50B  
Well diameter 2 [in]  
Well total depth 42.82 [ft]  
Depth to top of screen 38.27 [ft]  
Screen length 55.2 [in]  
Depth to Water 34.94 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 322.32 [mL]  
Calculated Sample Rate 129 [sec]  
Sample rate 129 [sec]  
Stabilized drawdown 0.69 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	10:56:11	16.53	6.96	864.38	14.54	0.77	-70.17	
	10:58:25	16.74	6.96	875.14	20.55	0.76	-75.34	
	11:00:38	16.92	6.95	881.98	13.62	0.75	-80.39	
	11:02:52	16.73	6.96	883.44	14.63	0.72	-84.99	
	11:05:06	16.45	6.97	880.35	13.90	0.73	-88.80	
Variance in last 3 readings	11:00:38	0.18	0.00	6.84	-6.93	-0.01	-5.04	
	11:02:52	-0.18	0.01	1.45	1.00	-0.03	-4.61	
	11:05:06	-0.28	0.01	-3.08	-0.72	0.01	-3.81	

**Notes:** Turb > 10 ntu

**INSTRUCTIONS:** This is the raw data export format from the Win-Situ® Low Flow Cell data file Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-50B-10-11-2007.flo. To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®.

Operator Name:	Nathan McNurten		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	HMW-50B		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	46 [ft]
Well Depth:	42.82 [ft]
Well Diam:	2 [in]
Screen Len:	55.2 [in]
Screen Depth:	38.27 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	34.94 [ft]
Depth to TOC:	38.27 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0.69 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (205.3 mL) - pH, ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	322.32 [mL]
Actual Total Volume:	322.32 [mL]
Calculated Measurement Interval:	129 [sec]
Actual Measurement Interval:	129 [sec]

Start date/time:	10/11/2007	10:46:39													
End date/time:	10/11/2007	11:05:53													
Total Time:	0:19:14														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [m]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.96	-0.01	-70.17	-4.03	0.77	-0.01			864.38	9.31	14.54	-0.82	12:43:12	-0.11	0.455683
3	6.96	0	-75.34	-5.18	0.76	0			875.14	10.76	20.55	6.01	17:45:36	0.21	0.457234
2	6.95	0	-80.39	-5.04	0.75	-0.01			881.98	6.84	13.62	-6.93	22:04:48	0.18	0.458773
1	6.96	0.01	-84.99	-4.61	0.72	-0.03			883.44	1.45	14.63	1	17:31:12	-0.18	0.460324
0	6.97	0.01	-88.8	-3.81	0.73	0.01			880.35	-3.08	13.9	-0.72	10:48:00	-0.28	0.461875

pH Min:	6.95
pH Max:	6.97
ORP Min:	-88.8
ORP Max:	-70.17
DO Min:	0.72
DO Max:	0.77
RDO Min:	
RDO Max:	
Cond Min:	864.38
Cond Max:	883.44
Turb Min:	13.62
Turb Max:	20.55
Temp Min:	16.45
Temp Max:	16.92

Notes:	Turb > 10 ntu
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.465868056
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-50B-10-11-2007.flb.bin
Win-Situ® Version	4.57.5.0
Serial number:	45405
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.4490625
Test started on:	39366 0.4490625
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	10

TOTAL DATA SAMPLES	10
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1] Temperature	Chan[3] Barometric	Chan[4] Turbidity	Chan[5] Battery	Chan[11] ORP	Chan[12] pH	Chan[25] Clark DO	Chan[25] Clark DO Sal	Chan[45] Conductivity
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSieme ns/cm Actual Conductivity
10/11/2007	10:46:39	0	15.86	29.684	17.7	2.915	-29	7.08	0.9	9.2173	840.65
10/11/2007	10:47:17	38	15.88	29.685	16.4	2.915	-38	7.06	0.87	8.8919	842.3
10/11/2007	10:49:31	172	15.87	29.681	15.4	2.837	-56	7.01	0.75	7.6871	844.63
10/11/2007	10:51:44	305	16.23	29.68	16.5	2.837	-63	6.99	0.73	7.4797	848.81
10/11/2007	10:53:58	439	16.63	29.678	15.4	2.915	-66	6.97	0.78	8.0672	855.07
10/11/2007	10:56:11	572	16.53	29.678	14.5	2.863	-70	6.96	0.77	7.9409	864.38
10/11/2007	10:58:25	706	16.74	29.675	20.6	2.889	-75	6.96	0.76	7.9623	875.14
10/11/2007	11:00:38	839	16.92	29.675	13.6	2.889	-80	6.95	0.75	7.8421	881.98
10/11/2007	11:02:52	973	16.73	29.673	14.6	2.915	-85	6.96	0.72	7.4792	883.44
10/11/2007	11:05:06	1107	16.45	29.671	13.9	2.915	-89	6.97	0.73	7.5119	880.35



Troll 9000

10/16/07

Low-Flow System

ISI Low-Flow Log

**Project Information:**

Operator Name Cory Yates  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 60 [ft]  
Pump placement from TOC 49 [ft]

**Well Information:**

Well Id HMW-50C  
Well diameter 2 [in]  
Well total depth 59.5 [ft]  
Depth to top of screen 47.88 [ft]  
Screen length 115.2 [in]  
Depth to Water 36.87 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 384.81 [mL]  
Calculated Sample Rate 154 [sec]  
Sample rate 154 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	9:23:12	15.60	6.17	1853.64	48.39	0.85	-172.86	
	9:25:52	15.41	6.17	1836.57	65.24	0.88	-173.75	
	9:28:31	15.32	6.18	1819.09	54.74	0.85	-176.32	
	9:31:11	15.42	6.22	1811.19	55.84	0.80	-179.05	
	9:33:50	15.41	6.23	1808.35	53.09	0.82	-181.01	
Variance in last 3 readings	9:28:31	-0.09	0.02	-17.49	-10.50	-0.03	-2.56	
	9:31:11	0.09	0.04	-7.90	1.10	-0.06	-2.73	
	9:33:50	-0.01	0.02	-2.83	-2.75	0.02	-1.96	

**Notes:** Well parameters stabilized

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-50C-10-16-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Cory Yates
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HVG
Well ID:	HMW-50C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	60 [ft]
Well Depth:	59.5 [ft]
Well Diam:	2 [in]
Screen Len:	115.2 [in]
Screen Depth:	47.88 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	36.87 [ft]
Pump Level (TOC):	49 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (267.8 mL) - pH, ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	384.81 [mL]
Actual Total Volume:	384.81 [mL]
Calculated Measurement Interval:	154 [sec]
Actual Measurement Interval:	154 [sec]

Start date/time:	10/16/2007	8:53:54													
End date/time:	10/16/2007	9:35:25													
Total Time:	0:41:31														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.17	-0.01	-172.86	0.56	0.85	0			1853.64	-15.09	48.39	7.48	14:24:00	0.18	0.391111
3	6.17	0	-173.75	-0.89	0.88	0.02			1836.57	-17.06	65.24	16.85	9:50:24	-0.19	0.392963
2	6.18	0.02	-176.32	-2.56	0.85	-0.03			1819.09	-17.49	54.74	-10.5	7:40:48	-0.09	0.394803
1	6.22	0.04	-179.05	-2.73	0.8	-0.06			1811.19	-7.9	55.84	1.1	10:04:48	0.09	0.396655
0	6.23	0.02	-181.01	-1.96	0.82	0.02			1808.35	-2.83	53.09	-2.75	9:50:24	-0.01	0.398495

pH Min:	6.17
pH Max:	6.23
ORP Min:	-181.01
ORP Max:	-172.86
DO Min:	0.8
DO Max:	0.88
RDO Min:	
RDO Max:	
Cond Min:	1808.35
Cond Max:	1853.64
Turb Min:	48.39
Turb Max:	65.24
Temp Min:	15.32
Temp Max:	15.6

Notes:	Well parameters stabilized
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.440474537
Report from file:	...\\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-50C-10-16-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45368
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39371 0.370763889
Test started on:	39371 0.370763889
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	16

TOTAL DATA SAMPLES	16
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1] Temperature	Chan[3] Barometric	Chan[4] Turbidity	Chan[5] Battery	Chan[11] ORP	Chan[12] pH	Chan[25] Clark DO	Chan[25] Clark DO Sat	Chan[45] Conductivity
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSieme ns/cm Actual Conductivity
10/16/2007	8:53:54	0	15.4	29.422	20.9	2.811	-165	6.56	1.27	13.018	2109.6
10/16/2007	8:56:32	158	15.33	29.422	47.2	2.759	-169	6.41	1.1	11.2913	2075.19
10/16/2007	8:59:12	318	15.35	29.422	54.7	2.785	-167	6.28	1.58	16.161	2021.16
10/16/2007	9:01:51	477	15.32	29.42	148.6	2.811	-165	6.21	1.05	10.7947	1986.97
10/16/2007	9:04:31	637	15.34	29.42	63.4	2.811	-165	6.16	1.02	10.481	1951.42
10/16/2007	9:07:10	796	15.31	29.42	168.3	2.811	-165	6.14	0.99	10.1485	1925.99
10/16/2007	9:09:50	956	15.34	29.421	182.2	2.759	-165	6.13	0.97	9.9476	1905.17
10/16/2007	9:12:29	1115	15.31	29.421	150.2	2.837	-170	6.16	0.93	9.5399	1910.75
10/16/2007	9:15:09	1275	15.37	29.421	91.3	2.811	-168	6.12	0.89	9.1407	1872.49
10/16/2007	9:17:48	1434	15.36	29.421	44.7	2.837	-169	6.13	0.9	9.2586	1850.58
10/16/2007	9:20:33	1599	15.42	29.421	40.9	2.759	-173	6.17	0.85	8.7518	1868.73
10/16/2007	9:23:12	1758	15.6	29.423	48.4	2.837	-173	6.17	0.85	8.7776	1853.64
10/16/2007	9:25:52	1918	15.41	29.423	65.2	2.837	-174	6.17	0.88	8.9888	1836.57
10/16/2007	9:28:31	2077	15.32	29.422	54.7	2.811	-176	6.18	0.85	8.7125	1819.09
10/16/2007	9:31:11	2237	15.42	29.423	55.8	2.759	-179	6.22	0.8	8.1538	1811.19
10/16/2007	9:33:50	2396	15.41	29.423	53.1	2.837	-181	6.23	0.82	8.3886	1808.35



Troll 9000

10/11/07

## **Low-Flow System**

ISI Low-Flow Log

## Project Information:

Operator Name Suzanne Dale  
Company Name URS Corporation  
Project Name  
Site Name Hartford Groundwater Sampling - 21561445 00106  
HWG

Hartford Groundwater Sampling - 21561445 00106

## Pump Information:

Pump Model/Type

QED Sample Pro

### Polyethylene

#### Tubing Diameter

0.17 [in]

### Tubing Length

41 [ft]

## Pump placement from TOC

0 [ft]

### **Well Information:**

Well Id	HMW-52C
Well diameter	2 [in]
Well total depth	40 [ft]
Depth to top of screen	24.62 [ft]
Screen length	175.2 [in]
Depth to Water	29.68 [ft]

## Pumping information:

### Final pumping rate

120 [mL/min]

Flowcell volume 300 [mL]

Calculated Sample Rate 150 [sec]

Sample rate 150 [sec]

## Stabilized drawdown

0.12 [in]

## Low-Flow Sampling Stabilization Summary

	Time	Temp [C]	pH [pH]	Cond [ $\mu\text{S}/\text{cm}$ ]	Turb [NTU]	DO [mg/L]	ORP [mV]
Stabilization Settings			+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
			+/-3 %	+/-10 %			
Last 5 Readings	14:12:32	16.85	6.61	1201.27	101.52	0.70	-74.39
	14:15:07	17.32	6.60	1212.48	54.62	0.68	-75.43
	14:17:43	18.29	6.60	1241.61	42.69	0.67	-76.58
	14:20:18	19.40	6.60	1277.09	35.76	0.68	-77.72
	14:22:53	20.39	6.59	1308.25	56.09	0.68	-78.83
Variance in last 3 readings	14:17:43	0.97	0.00	29.13	-11.94	-0.01	-1.15
	14:20:18	1.11	0.00	35.49	-6.92	0.01	-1.15
	14:22:53	0.99	-0.01	31.15	20.33	0.00	-1.11

**Notes:** Turb > 10 NTU

**INSTRUCTIONS:** This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-52C-10-11-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	Suzanne Dale
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HVG
Well ID:	HMW-52C

pH Sensor:	Installed	Target Value:	0.1 [pH]	Target Percent:	0 [%]
ORP Sensor:	Installed	Target Value:	10 [mV]	Target Percent:	0 [%]
DO Sensor:	Installed	Target Value:	0.3 [mg/L]	Target Percent:	0 [%]
Cond Sensor:	Installed	Target Value:	0.1 [µS/cm]	Target Percent:	3 [%]
Turb Sensor:	Installed	Target Value:	1 [NTU]	Target Percent:	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	41 [ft]
Well Depth:	40 [ft]
Well Diam:	2 [in]
Screen Len:	175.2 [in]
Screen Depth:	24.62 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.68 [ft]
Pump Level (TOC):	0 [ft]

Final Pumping Rate:	120 [mL/min]
Stable Draw Down:	0.12 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (183.0 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	300 [mL]
Actual Total Volume:	300 [mL]
Calculated Measurement Interval:	150 [sec]
Actual Measurement Interval:	150 [sec]

Start date/time:	10/11/2007	13:49:13													
End date/time:	10/11/2007	14:23:26													
Total Time:	0:34:13														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.61	0	-74.39	-1.19	0.7	-0.03			1201.27	-0.67	101.52	-21.29	20:24:00	-0.01	0.592037
3	6.6	0	-75.43	-1.04	0.68	-0.01			1212.48	11.2	54.62	-46.9	7:40:48	0.47	0.593831
2	6.6	0	-76.58	-1.15	0.67	-0.01			1241.61	29.13	42.69	-11.94	6:57:36	0.87	0.595637
1	6.6	0	-77.72	-1.15	0.68	0.01			1277.09	35.49	35.76	-6.92	9:36:00	1.11	0.597431
0	6.59	-0.01	-78.83	-1.11	0.68	0			1308.25	31.15	56.09	20.33	9:21:36	0.99	0.599225

pH Min:	6.59
pH Max:	6.61
ORP Min:	-78.83
ORP Max:	-74.39
DO Min:	0.67
DO Max:	0.7
RDO Min:	
RDO Max:	
Cond Min:	1201.27
Cond Max:	1308.25
Turb Min:	35.76
Turb Max:	101.52
Temp Min:	16.85
Temp Max:	20.33

Notes:	Turb > 10 NTU
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.466215278
Report from file:	Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-52C-10-11-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45405
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.575844907
Test started on:	39366 0.575844907
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	14

TOTAL DATA SAMPLES	14
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1] Temperature	Chan[3] Barometric	Chan[4] Turbidity	Chan[5] Battery	Chan[11] ORP	Chan[12] pH	Chan[25] Clark DO	Chan[25] Clark DO Sat	Chan[45] Conductivity
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSieme ns/cm Actual Conductivity
10/11/2007	13:49:13	0	17.09	29.625	212.6	2.837	-54	6.65	0.82	8.6269	1203.96
10/11/2007	13:51:48	155	17.05	29.623	231.9	2.863	-59	6.63	0.75	7.8454	1204.98
10/11/2007	13:54:24	311	17.01	29.625	211.8	2.889	-63	6.63	0.75	7.8546	1204.3
10/11/2007	13:57:00	467	16.88	29.624	157.9	2.889	-66	6.62	0.74	7.7362	1201.94
10/11/2007	13:59:35	622	16.8	29.621	155.1	2.837	-68	6.62	0.76	7.9435	1198.58
10/11/2007	14:02:11	778	16.78	29.62	139.1	2.915	-70	6.62	0.73	7.6385	1199.59
10/11/2007	14:04:46	933	16.78	29.619	121.8	2.915	-71	6.61	0.74	7.7498	1200.26
10/11/2007	14:07:21	1088	16.88	29.616	113.3	2.889	-72	6.61	0.71	7.4538	1202.28
10/11/2007	14:09:57	1244	16.86	29.615	122.8	2.915	-73	6.6	0.72	7.5737	1201.95
10/11/2007	14:12:32	1399	16.84	29.614	101.5	2.837	-74	6.61	0.7	7.2769	1201.27
10/11/2007	14:15:07	1554	17.32	29.614	54.6	2.837	-75	6.6	0.68	7.2138	1212.48
10/11/2007	14:17:43	1710	18.29	29.613	42.7	2.889	-77	6.6	0.67	7.2168	1241.61
10/11/2007	14:20:18	1865	19.4	29.613	35.8	2.837	-78	6.6	0.68	7.4543	1277.09
10/11/2007	14:22:53	2020	20.39	29.612	56.1	2.863	-79	6.59	0.68	7.6256	1308.25



Troll 9000

10/11/07

Low-Flow System

ISI Low-Flow Log

**Project Information:**

Operator Name Chris DeCioccio  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 48 [ft]  
Pump placement from TOC 42 [ft]

**Well Information:**

Well Id HMW-53C  
Well diameter 2 [in]  
Well total depth 47 [ft]  
Depth to top of screen 42 [ft]  
Screen length 60 [in]  
Depth to Water 33.79 [ft]

**Pumping information:**

Final pumping rate 180 [mL/min]  
Flowcell volume 331.25 [mL]  
Calculated Sample Rate 111 [sec]  
Sample rate 111 [sec]  
Stabilized drawdown 31.75 [in]

**Low-Flow Sampling Stabilization Summary**

Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>		+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	15:18:56	17.97	6.06	900.28	83.10	1.94
	15:20:50	17.93	6.06	899.39	144.21	1.89
	15:22:45	17.88	6.07	897.97	192.40	1.83
	15:24:40	17.87	6.07	897.77	260.53	1.84
	15:26:35	17.82	6.07	896.69	360.88	1.71
Variance in last 3 readings	15:22:45	-0.06	0.00	-1.42	48.18	-0.05
	15:24:40	-0.01	0.00	-0.20	68.13	0.00
	15:26:35	-0.04	-0.01	-1.08	100.35	-0.12
						0.14

**Notes:** turbidity greater than 10 ntu

**INSTRUCTIONS:** This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-53C-10-11-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ®.

Operator Name:	Chris DeCioccio
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HVG
Well ID:	HMW-53C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	OED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	48 [ft]
Well Depth:	47 [ft]
Well Diam:	2 [in]
Screen Len:	60 [in]
Screen Depth:	42 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	33.79 [ft]
Pump Level (TOC):	42 [ft]

Final Pumping Rate:	180 [mL/min]
Stable Draw Down:	31.75 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (214.2 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	331.25 [mL]
Actual Total Volume:	331.25 [mL]
Calculated Measurement Interval:	111 [sec]
Actual Measurement Interval:	111 [sec]

Start date/time:	10/11/2007	14:25:19													
End date/time:	10/11/2007	15:27:03													
Total Time:	1:01:44														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.06	-0.01	-30.65	-0.35	1.94	-0.05			900.28	-0.35	83.1	-108.04	23:16:48	-0.03	0.638148
3	6.06	0	-31.09	-0.44	1.89	-0.05			899.39	-0.89	144.21	61.12	22:19:12	-0.03	0.639468
2	6.07	0	-31.88	-0.79	1.83	-0.05			897.97	-1.42	192.4	48.18	21:07:12	-0.06	0.640799
1	6.07	0	-32.47	-0.58	1.84	0			897.77	-0.2	260.53	68.13	20:52:48	-0.01	0.64213
0	6.07	-0.01	-32.33	0.14	1.71	-0.12			896.69	-1.08	360.88	100.35	19:40:48	-0.04	0.643461

pH Min:	6.06
pH Max:	6.07
ORP Min:	-32.47
ORP Max:	-30.65
DO Min:	1.71
DO Max:	1.94
RDO Min:	
RDO Max:	
Cond Min:	896.69
Cond Max:	909.28
Turb Min:	83.1
Turb Max:	360.88
Temp Min:	17.82
Temp Max:	17.97

Notes:	turbidity greater than 10 ntu
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.440740741
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-53C-10-11-2007.fl0.bn
Win-Situ® Version	4.57.5.0
Serial number:	45368
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.600914352
Test started on:	39366 0.600914352
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	33

TOTAL DATA SAMPLES	33
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
10/11/2007	14:25:19	0	18.52	29.506	111	2.915	-27	6.2	5.07	55.0864	910.73
10/11/2007	14:27:14	115	18.69	29.501	358.8	2.863	-16	6.07	4.57	49.8182	912.17
10/11/2007	14:29:08	229	18.43	29.498	111.5	2.863	-24	6.16	4.37	47.3702	906.27
10/11/2007	14:31:04	345	18.49	29.496	126.1	2.915	-20	6.1	4.1	44.4806	905.56
10/11/2007	14:32:58	459	18.45	29.494	203.5	2.915	-21	6.11	3.89	42.2325	907.69
10/11/2007	14:34:54	575	18.27	29.492	156.3	2.915	-23	6.11	3.79	40.9346	903.09
10/11/2007	14:36:48	689	18.64	29.491	207.7	2.889	-23	6.09	3.51	38.2697	908.41
10/11/2007	14:38:43	804	18.39	29.487	162.5	2.915	-24	6.09	3.44	37.2854	908.78
10/11/2007	14:40:38	919	18.66	29.485	78.5	2.863	-22	6.07	3.18	34.6537	909.31
10/11/2007	14:42:33	1034	18.68	29.485	170.1	2.915	-21	6.06	3.05	33.2456	913.61
10/11/2007	14:44:28	1149	18.63	29.485	315.8	2.915	-14	5.97	2.85	31.2091	912.89
10/11/2007	14:46:23	1264	18.74	29.485	166.2	2.915	-19	6.03	2.72	29.7513	913.97
10/11/2007	14:48:18	1379	18.58	29.484	183.9	2.915	-21	6.04	2.63	28.6041	909.84
10/11/2007	14:50:13	1494	18.64	29.486	142.2	2.915	-25	6.07	2.6	28.2857	910.02
10/11/2007	14:52:08	1609	18.71	29.487	278.6	2.915	-20	6.02	2.56	27.956	913.98
10/11/2007	14:54:03	1724	18.51	29.487	171.3	2.915	-21	6.04	2.48	26.9608	910.56
10/11/2007	14:55:57	1838	18.68	29.487	149.3	2.863	-22	6.04	2.4	26.1536	914.16
10/11/2007	14:57:52	1953	18.52	29.486	225.8	2.915	-22	6.03	2.34	25.4473	910.39
10/11/2007	14:59:47	2068	18.53	29.487	179.8	2.915	-23	6.04	2.24	24.3493	907.71
10/11/2007	15:01:42	2183	18.6	29.487	102.7	2.915	-26	6.06	2.25	24.4884	910.21
10/11/2007	15:03:37	2298	18.33	29.487	195.3	2.915	-23	6.02	2.23	24.1163	908.59
10/11/2007	15:05:32	2413	18.47	29.485	208	2.915	-26	6.06	2.16	23.4472	908.6
10/11/2007	15:07:27	2528	18.34	29.488	174.7	2.889	-26	6.06	2.16	23.4435	906.46
10/11/2007	15:09:21	2642	18.37	29.487	140.3	2.889	-28	6.08	2.12	22.9217	904.15
10/11/2007	15:11:16	2757	18.35	29.488	156.8	2.889	-29	6.08	2.08	22.5474	906.28
10/11/2007	15:13:11	2872	18.18	29.488	109.6	2.863	-29	6.08	2.02	21.8452	902.92
10/11/2007	15:15:06	2987	18.12	29.486	165.2	2.915	-30	6.08	1.98	21.3227	902.04
10/11/2007	15:17:01	3102	18	29.485	191.1	2.889	-30	6.07	1.98	21.3117	900.63
10/11/2007	15:18:56	3217	17.97	29.483	83.1	2.863	-31	6.06	1.94	20.8	900.28
10/11/2007	15:20:50	3331	17.93	29.479	144.2	2.889	-31	6.06	1.89	20.283	899.39
10/11/2007	15:22:45	3446	17.88	29.479	192.4	2.863	-32	6.07	1.83	19.6737	897.97
10/11/2007	15:24:40	3561	17.87	29.477	260.5	2.889	-32	6.07	1.84	19.7026	897.77
10/11/2007	15:26:35	3676	17.82	29.477	360.9	2.889	-32	6.07	1.71	18.3705	896.69



Troll 9000

10/12/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name J.Mumper  
 Company Name URS Corporation  
 Project Name Hartford Groundwater Sampling - 21561445 00106  
 Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
 Tubing Type Polyethylene  
 Tubing Diameter 0.17 [in]  
 Tubing Length 50 [ft]  
 Pump placement from TOC 46 [ft]

**Well Information:**

Well Id HMW-54C  
 Well diameter 2 [in]  
 Well total depth 50 [ft]  
 Depth to top of screen 45 [ft]  
 Screen length 60 [in]  
 Depth to Water 31.94 [ft]

**Pumping information:**

Final pumping rate 132 [mL/min]  
 Flowcell volume 340.17 [mL]  
 Calculated Sample Rate 155 [sec]  
 Sample rate 155 [sec]  
 Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings	Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
	+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10		
	+/-3 %	+/-10 %					
Last 5 Readings	10:23:53	17.27	6.77	940.22	58.61	2.36	-90.32
	10:26:29	17.30	6.78	940.80	86.40	2.41	-88.39
	10:29:03	17.95	6.77	955.83	81.44	2.42	-86.58
	10:31:39	17.66	6.77	948.22	62.16	2.43	-86.01
	10:34:17	17.54	6.77	945.79	68.93	2.38	-87.33
Variance in last 3 readings	10:29:03	0.65	-0.01	15.03	-4.96	0.01	1.81
	10:31:39	-0.29	0.00	-7.61	-19.28	0.01	0.57
	10:34:17	-0.12	0.00	-2.42	6.78	-0.05	-1.32

**Notes:** Turbidity did not stabilize. Sampled after 1 hour.

INSTRUCTIONS. This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-54C-10-12-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® installation. You may copy this template from the templates subfolder in the folder where Win-Situ®

Operator Name:	J.Mumper
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HVG
Well ID:	HMW-54C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	50 [ft]
Well Depth:	50 [ft]
Well Diam:	2 [in]
Screen Len:	60 [in]
Screen Depth:	45 [ft]
Pump Intel Depth:	0 [in]
Depth to Water:	31.94 [ft]
Pump Level (TOC):	46 [ft]

Final Pumping Rate:	132 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (223.2 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	340.17 [mL]
Actual Total Volume:	340.17 [mL]
Calculated Measurement Interval:	155 [sec]
Actual Measurement Interval:	155 [sec]

Start date/time:	10/12/2007	9:34:28																																																																																																
End date/time:	10/12/2007	10:34:55																																																																																																
Total Time:	1:00:27																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp ICI</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.77</td> <td>-0.01</td> <td>-90.32</td> <td>0.09</td> <td>2.36</td> <td>-0.02</td> <td></td> <td></td> <td>940.22</td> <td>2.06</td> <td>58.61</td> <td>1.45</td> <td>6:28:48</td> <td>0.13</td> <td>0.433252</td> </tr> <tr> <td>3</td> <td>6.78</td> <td>0</td> <td>-86.39</td> <td>1.83</td> <td>2.41</td> <td>0.06</td> <td></td> <td></td> <td>940.8</td> <td>0.58</td> <td>86.4</td> <td>27.79</td> <td>7:12:00</td> <td>0.03</td> <td>0.435058</td> </tr> <tr> <td>2</td> <td>6.77</td> <td>-0.01</td> <td>-86.58</td> <td>1.81</td> <td>2.42</td> <td>0.01</td> <td></td> <td></td> <td>955.83</td> <td>15.03</td> <td>81.44</td> <td>-4.56</td> <td>22:48:00</td> <td>0.65</td> <td>0.43684</td> </tr> <tr> <td>1</td> <td>6.77</td> <td>0</td> <td>-86.01</td> <td>0.57</td> <td>2.43</td> <td>0.01</td> <td></td> <td></td> <td>948.22</td> <td>-7.61</td> <td>62.16</td> <td>-19.28</td> <td>15:50:24</td> <td>-0.29</td> <td>0.438646</td> </tr> <tr> <td>0</td> <td>6.77</td> <td>0</td> <td>-87.33</td> <td>-1.32</td> <td>2.38</td> <td>-0.05</td> <td></td> <td></td> <td>945.79</td> <td>-2.42</td> <td>68.93</td> <td>6.78</td> <td>12:57:36</td> <td>-0.12</td> <td>0.440475</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp ICI	Variance	Time	4	6.77	-0.01	-90.32	0.09	2.36	-0.02			940.22	2.06	58.61	1.45	6:28:48	0.13	0.433252	3	6.78	0	-86.39	1.83	2.41	0.06			940.8	0.58	86.4	27.79	7:12:00	0.03	0.435058	2	6.77	-0.01	-86.58	1.81	2.42	0.01			955.83	15.03	81.44	-4.56	22:48:00	0.65	0.43684	1	6.77	0	-86.01	0.57	2.43	0.01			948.22	-7.61	62.16	-19.28	15:50:24	-0.29	0.438646	0	6.77	0	-87.33	-1.32	2.38	-0.05			945.79	-2.42	68.93	6.78	12:57:36	-0.12	0.440475
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp ICI	Variance	Time																																																																																			
4	6.77	-0.01	-90.32	0.09	2.36	-0.02			940.22	2.06	58.61	1.45	6:28:48	0.13	0.433252																																																																																			
3	6.78	0	-86.39	1.83	2.41	0.06			940.8	0.58	86.4	27.79	7:12:00	0.03	0.435058																																																																																			
2	6.77	-0.01	-86.58	1.81	2.42	0.01			955.83	15.03	81.44	-4.56	22:48:00	0.65	0.43684																																																																																			
1	6.77	0	-86.01	0.57	2.43	0.01			948.22	-7.61	62.16	-19.28	15:50:24	-0.29	0.438646																																																																																			
0	6.77	0	-87.33	-1.32	2.38	-0.05			945.79	-2.42	68.93	6.78	12:57:36	-0.12	0.440475																																																																																			

pH Min:	6.77
pH Max:	6.78
ORP Min:	-90.32
ORP Max:	-86.01
DO Min:	2.36
DO Max:	2.43
RDO Min:	
RDO Max:	
Cond Min:	940.22
Cond Max:	955.83
Turb Min:	58.61
Turb Max:	86.4
Temp Min:	17.27
Temp Max:	17.95

Notes:	Turbidity did not stabilize, sampled after 1 hour.	
Device Record:		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.457847222
Report from file:	...\Hartford Groundwater Sampling - 21561445.00106-HWG-HMW-54C-10-12-2007.flb.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45711	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39367	0.398935185
Test started on:	39367	0.398935185
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds.
Time between default storage:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	24	

TOTAL DATA SAMPLES	24
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Temperature Celsius	Chan[1] Barometric	Chan[3] NTU	Chan[4] Turbidity	Chan[5] Battery	Chan[11] ORP	Chan[12] pH	Chan[25] Clark DO	Chan[25] Clark DO Sat	Chan[45] Conductivity
												microSiemens/cm Actual
												%Saturation Conductivity
10/12/2007	9:34:28	0	17.19	29.62	56.4	2.785	-98	6.74	7.7	81.0466	920.81	
10/12/2007	9:37:03	155	17.05	29.62	75.2	2.785	-98	6.75	7.63	80.1505	922.06	
10/12/2007	9:39:39	311	17.02	29.621	93.3	2.785	-97	6.76	7.17	75.2081	924.76	
10/12/2007	9:42:15	467	16.93	29.623	106	2.785	-96	6.77	6.77	70.9191	926.94	
10/12/2007	9:44:51	623	16.93	29.626	99.6	2.785	-96	6.77	6.36	66.5526	930.03	
10/12/2007	9:47:27	779	17.07	29.626	95.9	2.785	-96	6.77	5.94	62.334	934.63	
10/12/2007	9:50:03	935	16.99	29.623	98.2	2.785	-95	6.77	5.64	59.1398	932.63	
10/12/2007	9:52:39	1091	17.01	29.622	80.4	2.785	-95	6.78	5.25	55.0557	934.86	
10/12/2007	9:55:15	1247	17.02	29.621	61.5	2.759	-95	6.77	4.92	51.608	933.6	
10/12/2007	9:57:51	1403	16.9	29.621	77.7	2.603	-95	6.78	4.6	48.1576	931.23	
10/12/2007	10:00:27	1559	17.14	29.619	58.5	2.603	-94	6.78	4.28	45.0469	936.22	
10/12/2007	10:03:04	1716	17.07	29.62	58.1	2.629	-94	6.78	4.11	43.1562	935.12	
10/12/2007	10:05:40	1872	17.1	29.622	71	2.759	-95	6.78	3.93	41.2619	936.44	
10/12/2007	10:08:16	2028	17.17	29.621	102.7	2.525	-94	6.78	3.75	39.4546	937.02	
10/12/2007	10:10:51	2183	17.14	29.622	57.5	2.759	-93	6.78	2.55	26.8519	936.3	
10/12/2007	10:13:28	2340	17.11	29.624	53	2.759	-92	6.78	2.43	25.4886	936.86	
10/12/2007	10:16:04	2496	17.03	29.622	61.3	2.759	-92	6.78	2.38	25.0199	934.46	
10/12/2007	10:18:39	2651	17.07	29.622	49.8	2.785	-91	6.78	2.38	25.0333	937.23	
10/12/2007	10:21:16	2808	17.14	29.622	57.2	2.759	-90	6.78	2.38	25.0294	938.16	
10/12/2007	10:23:53	2965	17.27	29.621	58.6	2.759	-90	6.77	2.36	24.8668	940.22	
10/12/2007	10:26:29	3121	17.3	29.62	86.4	2.759	-88	6.78	2.41	25.486	940.8	
10/12/2007	10:29:03	3275	17.95	29.618	81.4	2.759	-87	6.77	2.42	25.9262	955.83	
10/12/2007	10:31:39	3431	17.66	29.618	62.2	2.759	-86	6.77	2.43	25.8757	948.22	
10/12/2007	10:34:17	3589	17.54	29.618	68.9	2.759	-87	6.77	2.38	25.2692	945.79	

**Troll 9000**

10/15/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445.00106**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 36 [ft]  
Pump placement from TOC 33.25 [ft]

**Well Information:**

Well Id MP-59C  
Well diameter 2 [in]  
Well total depth 37 [ft]  
Depth to top of screen 21.44 [ft]  
Screen length 176.4 [in]  
Depth to Water 31.25 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 277.68 [mL]  
Calculated Sample Rate 112 [sec]  
Sample rate 112 [sec]  
Stabilized drawdown 0.06 [in]

**Low-Flow Sampling Stabilization Summary**

		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	14:10:04	18.58	6.51	2340.83	12.90	1.35	-53.32	
	14:11:59	18.49	6.43	2289.69	11.28	1.25	-51.03	
	14:13:55	18.45	6.39	2247.70	13.29	1.18	-49.38	
	14:15:51	18.40	6.34	2217.38	12.36	1.09	-47.43	
	14:17:47	18.30	6.32	2196.51	12.84	1.07	-46.42	
Variance in last 3 readings	14:13:55	-0.04	-0.05	-41.99	2.02	-0.06	1.65	
	14:15:51	-0.05	-0.05	-30.32	-0.93	-0.09	1.95	
	14:17:47	-0.09	-0.03	-20.87	0.48	-0.02	1.01	

**Notes:** Turb > 10 ntu

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-MP-59C-10-15-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® i

Operator Name:	Nathan McNurlen		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	MP-59C		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [µS/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	36 [ft]
Well Depth:	37 [ft]
Well Diam:	2 [in]
Screen Len:	176.4 [in]
Screen Depth:	21.44 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	31.25 [ft]
Pump Level (TOC):	33.25 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0.06 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (160.7 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	277.68 [mL]
Actual Total Volume:	277.68 [mL]
Calculated Measurement Interval:	112 [sec]
Actual Measurement Interval:	112 [sec]

Start date/time:	10/15/2007	14:08:07																																																																																																
End date/time:	10/15/2007	14:18:30																																																																																																
Total Time:	0:10:23																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [ ]</th> <th>Variance</th> <th>Cond [µS/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.51</td> <td>-0.08</td> <td>-53.32</td> <td>0.41</td> <td>1.35</td> <td>-0.18</td> <td></td> <td></td> <td>2340.83</td> <td>-80.74</td> <td>12.9</td> <td>0.05</td> <td>13:55:12</td> <td>-0.17</td> <td>0.590324</td> </tr> <tr> <td>3</td> <td>6.43</td> <td>-0.08</td> <td>-51.03</td> <td>2.29</td> <td>1.25</td> <td>-0.1</td> <td></td> <td></td> <td>2289.69</td> <td>-51.14</td> <td>11.28</td> <td>-1.63</td> <td>11:45:36</td> <td>-0.1</td> <td>0.591655</td> </tr> <tr> <td>2</td> <td>6.39</td> <td>-0.05</td> <td>-49.38</td> <td>1.65</td> <td>1.18</td> <td>-0.06</td> <td></td> <td></td> <td>2247.7</td> <td>-41.99</td> <td>13.29</td> <td>2.02</td> <td>10:48:00</td> <td>-0.04</td> <td>0.592998</td> </tr> <tr> <td>1</td> <td>6.34</td> <td>-0.05</td> <td>-47.43</td> <td>1.95</td> <td>1.09</td> <td>-0.09</td> <td></td> <td></td> <td>2217.38</td> <td>-30.32</td> <td>12.36</td> <td>-0.93</td> <td>9:36:00</td> <td>-0.05</td> <td>0.59434</td> </tr> <tr> <td>0</td> <td>6.32</td> <td>-0.03</td> <td>-46.42</td> <td>1.01</td> <td>1.07</td> <td>-0.02</td> <td></td> <td></td> <td>2196.51</td> <td>-20.87</td> <td>12.84</td> <td>0.48</td> <td>7:12:00</td> <td>-0.09</td> <td>0.595683</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [ ]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.51	-0.08	-53.32	0.41	1.35	-0.18			2340.83	-80.74	12.9	0.05	13:55:12	-0.17	0.590324	3	6.43	-0.08	-51.03	2.29	1.25	-0.1			2289.69	-51.14	11.28	-1.63	11:45:36	-0.1	0.591655	2	6.39	-0.05	-49.38	1.65	1.18	-0.06			2247.7	-41.99	13.29	2.02	10:48:00	-0.04	0.592998	1	6.34	-0.05	-47.43	1.95	1.09	-0.09			2217.38	-30.32	12.36	-0.93	9:36:00	-0.05	0.59434	0	6.32	-0.03	-46.42	1.01	1.07	-0.02			2196.51	-20.87	12.84	0.48	7:12:00	-0.09	0.595683
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [ ]	Variance	Cond [µS/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
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pH Min:	6.32
pH Max:	6.51
ORP Min:	-53.32
ORP Max:	-46.42
DO Min:	1.07
DO Max:	1.35
RDO Min:	
RDO Max:	
Cond Min:	2196.51
Cond Max:	2340.83
Turb Min:	11.28
Turb Max:	13.29
Temp Min:	18.3
Temp Max:	18.58

Notes:	Turb > 10 ntu
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.466793981
Report from file:	..\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-59C-10-15-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45405
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39370 0.588969907
Test started on:	39370 0.588969907
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	6

TOTAL DATA SAMPLES	6
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSiemens/cm Actual Conductivity
10/15/2007	14:08:07	0	18.75	29.452	12.9	2.759	-54	6.59	1.53	16.8116	2421.57
10/15/2007	14:10:04	117	18.58	29.449	12.9	2.733	-53	6.51	1.35	14.7571	2340.83
10/15/2007	14:11:59	232	18.49	29.448	11.3	2.733	-51	6.43	1.25	13.6266	2289.69
10/15/2007	14:13:55	348	18.45	29.446	13.3	2.785	-49	6.39	1.18	12.9188	2247.7
10/15/2007	14:15:51	464	18.4	29.444	12.4	2.759	-47	6.34	1.09	11.8741	2217.38
10/15/2007	14:17:47	580	18.3	29.445	12.8	2.811	-46	6.32	1.07	11.6375	2196.51



Troll 9000

10/11/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name J Mimper  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445.00106

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 40 [ft]  
Pump placement from TOC 30.7 [ft]

**Well Information:**

Well Id MP-78D  
Well diameter 2 [in]  
Well total depth 38.2 [ft]  
Depth to top of screen 27.96 [ft]  
Screen length 115.2 [in]  
Depth to Water 32.72 [ft]

**Pumping information:**

Final pumping rate 120 [mL/min]  
Flowcell volume 295.54 [mL]  
Calculated Sample Rate 148 [sec]  
Sample rate 148 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	10:45:27	16.67	6.46	1059.21	23.67	2.86	-80.29	
	10:47:57	16.84	6.48	1065.56	13.92	2.83	-80.61	
	10:50:25	17.12	6.44	1072.78	19.78	2.79	-76.67	
	10:52:54	17.15	6.42	1075.71	20.41	2.82	-73.50	
	10:55:23	17.50	6.42	1084.62	19.56	2.85	-69.55	
Variance in last 3 readings	10:50:25	0.27	-0.03	7.21	5.85	-0.03	3.93	
	10:52:54	0.03	-0.03	2.93	0.64	0.02	3.18	
	10:55:23	0.36	0.00	8.91	-0.85	0.03	3.95	

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-MP-78D-10-11-2007.flo To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	J Mipper		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	MP-78D		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	40 [ft]
Well Depth:	38.2 [ft]
Well Diam:	2 [in]
Screen Len:	115.2 [in]
Screen Depth:	27.96 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	32.72 [ft]
Pump Level (TOC):	30.7 [ft]

Final Pumping Rate:	120 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (178.5 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	295.54 [mL]
Actual Total Volume:	295.54 [mL]
Calculated Measurement Interval:	148 [sec]
Actual Measurement Interval:	148 [sec]

Start date/time:	10/11/2007	10:25:35																																																																																																
End date/time:	10/11/2007	10:57:28																																																																																																
Total Time:	0:31:53																																																																																																	
<hr/>																																																																																																		
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Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
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2	6.44	-0.03	-76.67	3.93	2.79	-0.03			1072.78	7.21	19.78	5.85	2:52:48	0.27	0.451678																																																																																			
1	6.42	-0.03	-73.5	3.18	2.82	0.02			1075.71	2.93	20.41	0.64	3:36:00	0.03	0.453403																																																																																			
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pH Min:	6.42
pH Max:	6.48
ORP Min:	-80.61
ORP Max:	-69.55
DO Min:	2.79
DO Max:	2.86
RDO Min:	
RDO Max:	
Cond Min:	1059.21
Cond Max:	1084.62
Turb Min:	13.92
Turb Max:	23.67
Temp Min:	16.67
Temp Max:	17.5

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.458217593
Report from file:	..\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-78D-10-11-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45711
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.43443287
Test started on:	39366 0.43443287
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	13

TOTAL DATA SAMPLES	13
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
			Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSiemens/cm Actual Conductivity
10/11/2007	10:25:35	0	16.5	29.634	50.1	2.759	-77	6.51	3.18	33.0043	1052.92
10/11/2007	10:28:03	148	16.43	29.634	33.9	2.759	-78	6.5	3.1	32.0926	1051.32
10/11/2007	10:30:32	297	16.55	29.632	27.1	2.785	-81	6.51	2.99	31.0977	1054.9
10/11/2007	10:33:02	447	16.59	29.634	29.8	2.785	-81	6.5	2.95	30.6618	1056.84
10/11/2007	10:35:31	596	16.48	29.633	28.4	2.759	-79	6.48	2.94	30.4594	1054.51
10/11/2007	10:38:00	745	16.46	29.633	17.3	2.759	-82	6.51	2.89	29.9697	1047.97
10/11/2007	10:40:29	894	16.48	29.634	18.7	2.759	-79	6.47	2.89	29.933	1050.11
10/11/2007	10:42:58	1043	16.89	29.634	27.7	2.785	-77	6.47	2.81	29.4251	1062.97
10/11/2007	10:45:27	1192	16.67	29.634	23.7	2.759	-80	6.46	2.86	29.7494	1059.21
10/11/2007	10:47:57	1342	16.84	29.633	13.9	2.759	-81	6.48	2.83	29.5378	1065.56
10/11/2007	10:50:25	1490	17.12	29.636	19.8	2.785	-77	6.44	2.79	29.3779	1072.78
10/11/2007	10:52:54	1639	17.15	29.635	20.4	2.759	-73	6.42	2.82	29.6428	1075.71
10/11/2007	10:55:23	1788	17.5	29.635	19.6	2.759	-70	6.42	2.85	30.1689	1084.62



Troll 9000

10/11/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 36 [ft]  
Pump placement from TOC 28.75 [ft]

**Well Information:**

Well Id MP-81C  
Well diameter 2 [in]  
Well total depth 32.8 [ft]  
Depth to top of screen 17.15 [ft]  
Screen length 177.6 [in]  
Depth to Water 26.75 [ft]

**Pumping information:**

Final pumping rate 160 [mL/min]  
Flowcell volume 277.68 [mL]  
Calculated Sample Rate 105 [sec]  
Sample rate 105 [sec]  
Stabilized drawdown 0.05 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	15:37:19	16.05	6.35	1187.62	17.00	0.78	7.90	
	15:39:09	16.04	6.31	1185.66	12.41	0.74	-1.22	
	15:40:57	15.99	6.28	1181.41	13.62	0.72	-4.65	
	15:42:45	15.93	6.25	1177.52	14.15	0.72	-7.57	
	15:44:35	15.86	6.23	1175.58	13.44	0.73	-9.25	
Variance in last 3 readings		15:40:57	-0.05	-0.03	-4.25	1.22	-0.02	-3.43
		15:42:45	-0.06	-0.03	-3.89	0.53	0.00	-2.92
		15:44:35	-0.07	-0.02	-1.94	-0.71	0.01	-1.68

**Notes:** Turb > 10 ntu

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-MP-81C-10-11-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	Nathan McNurlen		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	MP-81C		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	36 [ft]
Well Depth:	32.8 [ft]
Well Diam:	2 [in]
Screen Len:	177.6 [in]
Screen Depth:	17.15 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	26.75 [ft]
Pump Level (TOC):	28.75 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0.05 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (160.7 mL) - pH, ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	277.68 [mL]
Actual Total Volume:	277.68 [mL]
Calculated Measurement Interval:	105 [sec]
Actual Measurement Interval:	105 [sec]

Start date/time:	10/11/2007	15:33:43													
End date/time:	10/11/2007	15:45:18													
Total Time:	0:11.35														
<hr/>															
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.35	-0.03	7.9	-21.57	0.78	-0.06			1187.62	-1.31	17	-12.95	1:12:00	0.02	0.650914
3	6.31	-0.04	-1.22	-9.12	0.74	-0.05			1185.66	-1.97	12.41	-4.6	0:57:36	-0.01	0.652188
2	6.28	-0.03	-4.65	-3.43	0.72	-0.02			1181.41	-4.25	13.62	1.22	23:45:36	-0.05	0.653438
1	6.25	-0.03	-7.57	-2.92	0.72	0			1177.52	-3.89	14.15	0.53	22:19:12	-0.06	0.654688
0	6.23	-0.02	-9.25	-1.68	0.73	0.01			1175.58	-1.94	13.44	-0.71	20:38:24	-0.07	0.655961

pH Min:	6.23
pH Max:	6.35
ORP Min:	-9.25
ORP Max:	7.9
DO Min:	0.72
DO Max:	0.78
RDO Min:	
RDO Max:	
Cond Min:	1175.58
Cond Max:	1187.62
Turb Min:	12.41
Turb Max:	17
Temp Min:	15.86
Temp Max:	16.05

Notes:	Turb > 10 ntu	
<b>Device Record:</b>		
In-Situ Inc.	Troll 9000 Pro XP	
Report generated:	39378	0.471006944
Report from file:	...\\Hartford_Groundwater Sampling - 21561445.00106-HVG-MP-81C-10-11-2007.flo.bin	
Win-Situ® Version	4.57.5.0	
Serial number:	45405	
Firmware Version	2.03	
Unit name:	MP Troll 9000	
Test name:	LowFlow	
Test defined on:	39366	0.648414352
Test started on:	39366	0.648414352
Test stopped on:	N/A	N/A
Data gathered using Event testing		
Time between data points:	0.0	Seconds,
Time between default storages:	0.0	Seconds.
Monitoring data on channel [1]		
Data stored if delta value exceeds:	0 Celsius	
Number of data samples:	7	

TOTAL DATA SAMPLES	7
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

			Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
Date	Time	ET (sec)	Celsius	Inches Hg	NTU	Volts	millivolts	pH	milligrams/L	%Saturation	microSiemens/cm Actual Conductivity
10/11/2007	15:33:43	0	16.17	29.598	24.3	2.889	46	6.46	0.96	9.8881	1192.57
10/11/2007	15:35:31	108	16.03	29.596	30	2.863	29	6.39	0.84	8.6774	1188.94
10/11/2007	15:37:19	216	16.05	29.595	17	2.889	8	6.35	0.78	8.0805	1187.62
10/11/2007	15:39:09	326	16.04	29.595	12.4	2.889	-1	6.31	0.74	7.6082	1185.66
10/11/2007	15:40:57	434	15.99	29.593	13.6	2.837	-5	6.28	0.72	7.3819	1181.41
10/11/2007	15:42:45	542	15.93	29.592	14.2	2.889	-8	6.25	0.72	7.3537	1177.52
10/11/2007	15:44:35	652	15.86	29.591	13.4	2.811	-9	6.23	0.73	7.4843	1175.58



Troll 9000

10/11/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name J. Mumper  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 0 [ft]  
Pump placement from TOC 0 [ft]

**Well Information:**

Well Id MP-83C  
Well diameter 2 [in]  
Well total depth 42.5 [ft]  
Depth to top of screen 22 [ft]  
Screen length 234 [in]  
Depth to Water 0 [ft]

**Pumping information:**

Final pumping rate 100 [mL/min]  
Flowcell volume 117 [mL]  
Calculated Sample Rate 71 [sec]  
Sample rate 71 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	14:33:33	18.70	6.58	895.19	33.08	3.25	-72.65
	14:34:44	18.79	6.58	901.38	25.79	3.19	-72.52
	14:35:56	18.89	6.59	901.74	29.40	3.13	-73.84
	14:37:07	18.97	6.60	903.32	30.69	3.08	-74.90
	14:38:18	18.99	6.62	900.58	29.67	3.05	-77.25
Variance in last 3 readings	14:35:56	0.09	0.01	0.36	3.62	-0.05	-1.32
	14:37:07	0.09	0.01	1.58	1.29	-0.05	-1.06
	14:38:18	0.02	0.02	-2.74	-1.03	-0.03	-2.35

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-MP-83C-10-11-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	J. Mumper		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	MP-83C		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro		
Tubing Type:	Polyethylene		
Tubing Diam:	0.17 [in]		
Tubing Length:	0 [ft]		
Well Depth:	42.5 [ft]		
Well Diam:	2 [in]		
Screen Len:	234 [in]		
Screen Depth:	22 [ft]		
Pump Inlet Depth:	0 [in]		
Depth to Water:	0 [ft]		
Pump Level (TOC):	0 [ft]		

Final Pumping Rate:	100 [mL/min]
Stable Draw Down:	0 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (0 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	117 [mL]
Actual Total Volume:	117 [mL]
Calculated Measurement Interval:	71 [sec]
Actual Measurement Interval:	71 [sec]

Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.58	0	-72.65	-0.34	3.25	-0.08			895.19	2.73	33.08	9.71	16:48:00	0.21	0.606632
3	6.58	0	-72.52	0.13	3.19	-0.06			901.38	6.19	25.79	-7.3	18:57:36	0.1	0.607454
2	6.59	0.01	-73.84	-1.32	3.13	-0.05			901.74	0.36	29.4	3.62	21:21:36	0.09	0.608287
1	6.6	0.01	-74.9	-1.06	3.08	-0.05			903.32	1.58	30.69	1.29	23:16:48	0.09	0.609109
0	6.62	0.02	-77.25	-2.35	3.05	-0.03			900.58	-2.74	29.67	-1.03	23:45:36	0.02	0.609931

pH Min:	6.58
pH Max:	6.62
ORP Min:	-77.25
ORP Max:	-72.52
DO Min:	3.05
DO Max:	3.25
RDO Min:	
RDO Max:	
Cond Min:	895.19
Cond Max:	903.32
Turb Min:	25.79
Turb Max:	33.08
Temp Min:	18.7
Temp Max:	18.99

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.458657407
Report from file:	..\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-B3C-10-11-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45711
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.58349537
Test started on:	39366 0.58349537
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	33

TOTAL DATA SAMPLES	33
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
10/11/2007	14:00:14	0	19.07	29.583	-0.3	2.811	-21	6.19	5.36	58.7592	861.09
10/11/2007	14:01:24	70	19.29	29.582	21.4	2.785	-25	6.23	5.31	58.3753	872.6
10/11/2007	14:02:35	141	19.76	29.582	5	2.785	-28	6.24	5.15	57.2446	876.35
10/11/2007	14:03:47	213	20.07	29.582	6.8	2.785	-29	6.25	5.09	56.9284	881.13
10/11/2007	14:04:58	284	20.24	29.58	10.2	2.785	-28	6.23	4.97	55.724	896.62
10/11/2007	14:06:10	356	20.2	29.58	7.6	2.785	-26	6.21	4.86	54.5101	891.9
10/11/2007	14:07:21	427	20.33	29.58	14.5	2.785	-25	6.21	4.71	52.8828	890.6
10/11/2007	14:08:33	499	20.24	29.578	4.6	2.785	-25	6.22	4.65	52.1169	894.89
10/11/2007	14:09:45	571	20.13	29.577	4.9	2.785	-27	6.24	4.56	50.9839	903.88
10/11/2007	14:10:56	642	20.71	29.579	7.2	2.785	-27	6.24	4.35	49.2564	908.12
10/11/2007	14:12:07	713	20.75	29.577	1.6	2.785	-28	6.25	4.31	48.7703	907.11
10/11/2007	14:13:20	786	19.5	29.577	16	2.785	-30	6.27	4.5	49.6788	884.45
10/11/2007	14:14:30	856	18.64	29.577	20.6	2.785	-36	6.34	4.54	49.2726	870.72
10/11/2007	14:15:41	927	18.68	29.575	10.7	2.811	-46	6.42	4.41	47.9543	876.26
10/11/2007	14:16:53	999	18.83	29.576	8.6	2.811	-51	6.44	4.28	46.6961	876.28
10/11/2007	14:18:04	1070	18.65	29.576	2.2	2.811	-52	6.45	4.24	46.075	882.54
10/11/2007	14:19:16	1142	18.51	29.577	8.5	2.785	-57	6.48	4.17	45.1176	880.73
10/11/2007	14:20:27	1213	18.43	29.576	13.9	2.785	-60	6.51	4.1	44.373	883.38
10/11/2007	14:21:39	1285	18.16	29.575	7.4	2.785	-66	6.55	4.06	43.6996	881.89
10/11/2007	14:22:50	1356	18.06	29.572	15.3	2.811	-69	6.57	3.98	42.7308	880.24
10/11/2007	14:24:02	1428	18.13	29.571	16.5	2.785	-71	6.59	3.88	41.6863	880.22
10/11/2007	14:25:13	1499	17.93	29.571	17.6	2.785	-70	6.57	3.82	40.948	878.39
10/11/2007	14:26:24	1570	17.76	29.566	19.2	2.811	-71	6.58	3.74	39.9373	875.08
10/11/2007	14:27:36	1642	18.07	29.567	21.1	2.785	-73	6.6	3.6	38.6639	883.09
10/11/2007	14:28:47	1713	18.29	29.565	16.6	2.785	-74	6.6	3.5	37.7906	887.57
10/11/2007	14:29:58	1784	18.57	29.564	19	2.811	-72	6.58	3.4	36.9298	893.29
10/11/2007	14:31:10	1856	18.6	29.564	17	2.785	-74	6.6	3.36	36.433	896.36
10/11/2007	14:32:21	1927	18.48	29.562	23.4	2.785	-72	6.58	3.33	36.0601	892.46
10/11/2007	14:33:33	1999	18.7	29.563	33.1	2.785	-73	6.58	3.25	35.3213	895.19
10/11/2007	14:34:44	2070	18.79	29.561	25.8	2.785	-73	6.58	3.19	34.7314	901.38
10/11/2007	14:35:56	2142	18.89	29.56	29.4	2.785	-74	6.59	3.13	34.1989	901.74
10/11/2007	14:37:07	2213	18.97	29.56	30.7	2.785	-75	6.6	3.08	33.743	903.32
10/11/2007	14:38:18	2284	18.99	29.558	29.7	2.785	-77	6.62	3.05	33.419	900.58

**Troll 9000**

10/11/07

**Low-Flow System****ISI Low-Flow Log****Project Information:**

Operator Name J. Mumper  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445.00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445.00106

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 48 [ft]  
Pump placement from TOC 40 [ft]

**Well Information:**

Well Id MP-85D  
Well diameter 2 [in]  
Well total depth 50 [ft]  
Depth to top of screen 39.45 [ft]  
Screen length 114 [in]  
Depth to Water 30.35 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 331.25 [mL]  
Calculated Sample Rate 133 [sec]  
Sample rate 133 [sec]  
Stabilized drawdown 0 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	17:17:42	17.83	6.71	985.54	197.63	2.03	-104.58	
	17:19:55	17.72	6.71	984.08	302.29	2.04	-104.58	
	17:22:09	17.71	6.71	983.86	334.89	2.02	-104.41	
	17:24:23	17.74	6.70	984.47	304.38	2.01	-104.63	
	17:26:37	17.87	6.71	986.32	353.79	2.01	-105.53	
Variance in last 3 readings	17:22:09	-0.01	0.00	-0.22	32.60	-0.01	0.17	
	17:24:23	0.03	0.00	0.61	-30.51	-0.01	-0.22	
	17:26:37	0.12	0.00	1.85	49.41	0.00	-0.90	

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file Hartford Groundwater Sampling - 21561445.00106-HWG-MP-85D-10-11-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	J. Mumper		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	MP-85D		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro		
Tubing Type:	Polyethylene		
Tubing Diam:	0.17 [in]		
Tubing Length:	48 [ft]		
Well Depth:	50 [ft]		
Well Diam:	2 [in]		
Screen Len:	114 [in]		
Screen Depth:	39.45 [ft]		
Pump Inlet Depth:	0 [in]		
Depth to Water:	30.35 [ft]		
Pump Level (TOC):	40 [ft]		

Final Pumping Rate:	150 [mL/min]		
Stable Draw Down:	0 [in]		
Total Volume Formula:	Volume = cup (200 mL) + tubing (214.2 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)		
Calculated Total Volume:	331.25 [mL]		
Actual Total Volume:	331.25 [mL]		
Calculated Measurement Interval:	133 [sec]		
Actual Measurement Interval:	133 [sec]		

Start date/time:	10/11/2007	16:52:57																																																																																																
End date/time:	10/11/2007	17:27:32																																																																																																
Total Time:	0:34:35																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.71</td> <td>0</td> <td>-104.58</td> <td>0.34</td> <td>2.03</td> <td>-0.03</td> <td></td> <td></td> <td>985.54</td> <td>3.07</td> <td>197.63</td> <td>59.37</td> <td>19.55:12</td> <td>0.12</td> <td>0.720625</td> </tr> <tr> <td>3</td> <td>6.71</td> <td>0</td> <td>-104.58</td> <td>0</td> <td>2.04</td> <td>0.01</td> <td></td> <td></td> <td>984.08</td> <td>-1.46</td> <td>302.29</td> <td>104.66</td> <td>17.16:48</td> <td>-0.11</td> <td>0.722164</td> </tr> <tr> <td>2</td> <td>6.71</td> <td>0</td> <td>-104.41</td> <td>0.17</td> <td>2.02</td> <td>-0.01</td> <td></td> <td></td> <td>983.86</td> <td>-0.22</td> <td>334.89</td> <td>32.6</td> <td>17.02:24</td> <td>-0.01</td> <td>0.723715</td> </tr> <tr> <td>1</td> <td>6.7</td> <td>0</td> <td>-104.63</td> <td>-0.22</td> <td>2.01</td> <td>-0.01</td> <td></td> <td></td> <td>984.47</td> <td>0.61</td> <td>304.38</td> <td>-30.51</td> <td>17.45:36</td> <td>0.03</td> <td>0.725266</td> </tr> <tr> <td>0</td> <td>6.71</td> <td>0</td> <td>-105.53</td> <td>-0.9</td> <td>2.01</td> <td>0</td> <td></td> <td></td> <td>986.32</td> <td>1.85</td> <td>353.79</td> <td>49.41</td> <td>20:52:48</td> <td>0.12</td> <td>0.726817</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.71	0	-104.58	0.34	2.03	-0.03			985.54	3.07	197.63	59.37	19.55:12	0.12	0.720625	3	6.71	0	-104.58	0	2.04	0.01			984.08	-1.46	302.29	104.66	17.16:48	-0.11	0.722164	2	6.71	0	-104.41	0.17	2.02	-0.01			983.86	-0.22	334.89	32.6	17.02:24	-0.01	0.723715	1	6.7	0	-104.63	-0.22	2.01	-0.01			984.47	0.61	304.38	-30.51	17.45:36	0.03	0.725266	0	6.71	0	-105.53	-0.9	2.01	0			986.32	1.85	353.79	49.41	20:52:48	0.12	0.726817
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.71	0	-104.58	0.34	2.03	-0.03			985.54	3.07	197.63	59.37	19.55:12	0.12	0.720625																																																																																			
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2	6.71	0	-104.41	0.17	2.02	-0.01			983.86	-0.22	334.89	32.6	17.02:24	-0.01	0.723715																																																																																			
1	6.7	0	-104.63	-0.22	2.01	-0.01			984.47	0.61	304.38	-30.51	17.45:36	0.03	0.725266																																																																																			
0	6.71	0	-105.53	-0.9	2.01	0			986.32	1.85	353.79	49.41	20:52:48	0.12	0.726817																																																																																			

pH Min:	6.7
pH Max:	6.71
ORP Min:	-105.53
ORP Max:	-104.41
DO Min:	2.01
DO Max:	2.04
RDO Min:	
RDO Max:	
Cond Min:	983.86
Cond Max:	986.32
Turb Min:	197.63
Turb Max:	353.79
Temp Min:	17.71
Temp Max:	17.87

Notes:	
Device Record:	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.459305556
Report from file:	...Hartford Groundwater Sampling - 21561445.00106-HWG-MP-85D-10-11-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45711
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39366 0.7034375
Test started on:	39366 0.7034375
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	17

TOTAL DATA SAMPLES	17
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity
10/11/2007	16:52:57	0	17.93	29.539	143.4	2.811	-106	6.72	2.14	22.8976	984.68
10/11/2007	16:53:11	14	17.91	29.539	135	2.785	-106	6.72	2.14	22.9345	984.07
10/11/2007	16:55:25	148	18.04	29.539	183	2.785	-105	6.71	2.11	22.6412	992.77
10/11/2007	16:57:38	281	17.89	29.537	29.3	2.785	-104	6.71	2.12	22.7065	989.41
10/11/2007	16:59:52	415	17.9	29.537	18.2	2.811	-103	6.71	2.1	22.5002	989.38
10/11/2007	17:02:05	548	17.95	29.537	32.5	2.811	-104	6.71	2.07	22.1943	989.56
10/11/2007	17:04:19	682	18.02	29.538	35	2.785	-105	6.71	2.06	22.0891	988.92
10/11/2007	17:06:33	816	17.99	29.538	163.4	2.785	-106	6.71	2.06	22.1317	988.9
10/11/2007	17:08:46	949	17.87	29.538	79.4	2.811	-106	6.71	2.06	22.053	989.72
10/11/2007	17:11:00	1083	17.83	29.538	60.8	2.785	-106	6.71	2.06	22.0571	987.42
10/11/2007	17:13:14	1217	17.85	29.537	82.4	2.785	-105	6.71	2.05	21.9198	985.97
10/11/2007	17:15:28	1351	17.72	29.535	138.3	2.811	-105	6.71	2.05	21.922	982.46
10/11/2007	17:17:42	1485	17.83	29.535	197.6	2.811	-105	6.71	2.03	21.6871	985.54
10/11/2007	17:19:55	1618	17.72	29.534	302.3	2.785	-105	6.71	2.04	21.7415	984.08
10/11/2007	17:22:09	1752	17.71	29.533	334.9	2.785	-104	6.71	2.02	21.6027	983.66
10/11/2007	17:24:23	1886	17.74	29.532	304.4	2.811	-105	6.7	2.01	21.5055	984.47
10/11/2007	17:26:37	2020	17.86	29.533	353.8	2.785	-106	6.71	2.01	21.5131	986.32

**Troll 9000**

10/10/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Chris DeCioccio  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445 00106**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 37.53 [ft]  
Pump placement from TOC 32.52 [ft]

**Well Information:**

Well Id MP-89C  
Well diameter 2 [in]  
Well total depth 38 [ft]  
Depth to top of screen 23 [ft]  
Screen length 180 [in]  
Depth to Water 30.53 [ft]

**Pumping information:**

Final pumping rate 150 [mL/min]  
Flowcell volume 284.51 [mL]  
Calculated Sample Rate 114 [sec]  
Sample rate 114 [sec]  
Stabilized drawdown 0.02 [in]

**Low-Flow Sampling Stabilization Summary**

	Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
<b>Stabilization Settings</b>			+/-0.1	+/-0.1 +/-3 %	+/-1 +/-10 %	+/-0.3	+/-10
Last 5 Readings	15:03:19	17.11	6.70	1235.32	22.82	2.20	-0.28
	15:05:17	16.99	6.70	1230.74	21.78	2.10	-0.09
	15:07:15	16.98	6.69	1228.78	20.44	2.07	0.08
	15:09:13	17.18	6.70	1234.69	19.19	1.85	-0.39
	15:11:09	17.17	6.69	1235.04	18.55	1.89	-1.02
<b>Variance in last 3 readings</b>	15:07:15	-0.01	-0.01	-1.96	-1.34	-0.04	0.17
	15:09:13	0.21	0.00	5.91	-1.25	-0.21	-0.47
	15:11:09	-0.01	0.00	0.35	-0.64	0.04	-0.63

**Notes:** turb > 10 ntu

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file: Hartford Groundwater Sampling - 21561445.00106-HWG-MP-89C-10-10-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® Installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	Chris DeCioccio
Company Name:	URS Corporation
Project Name:	Hartford Groundwater Sampling - 21561445.00106
Site Name:	HWG
Well ID:	MP-89C

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	37.53 [ft]
Well Depth:	38 [ft]
Well Diam:	2 [in]
Screen Len:	180 [in]
Screen Depth:	23 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	30.53 [ft]
Pump Level (TOC):	32.52 [ft]

Final Pumping Rate:	150 [mL/min]
Stable Draw Down:	0.02 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (167.5 mL) - pH_ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	284.51 [mL]
Actual Total Volume:	284.51 [mL]
Calculated Measurement Interval:	114 [sec]
Actual Measurement Interval:	114 [sec]

Start date/time:	10/10/2007	14:42:19													
End date/time:	10/10/2007	15:11:54													
Total Time:		0:29:35													
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [ ]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time
4	6.7	0	-0.28	0.41	2.2	-0.16			1235.32	-0.61	22.82	-2.83	2:38:24	-0.02	0.627303
3	6.7	0	-0.09	0.19	2.1	-0.1			1230.74	-4.58	21.78	-1.05	23:45:36	-0.12	0.628669
2	6.69	-0.01	0.08	0.17	2.07	-0.04			1228.78	-1.96	20.44	-1.34	23:31:12	-0.01	0.630035
1	6.7	0	-0.39	-0.47	1.85	-0.21			1234.69	5.91	19.19	-1.25	4:19:12	0.21	0.6314
0	6.69	0	-1.02	-0.63	1.89	0.04			1235.04	0.35	18.55	-0.64	4:04:48	-0.01	0.632743

pH Min:	6.69
pH Max:	6.7
ORP Min:	-1.02
ORP Max:	0.08
DO Min:	1.85
DO Max:	2.2
RDO Min:	
RDO Max:	
Cond Min:	1228.78
Cond Max:	1235.32
Turb Min:	18.55
Turb Max:	22.82
Temp Min:	16.98
Temp Max:	17.18

Notes:	turb > 10 ntu
<b>Device Record:</b>	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.441064815
Report from file:	..\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-89C-10-10-2007.flo.bin
Win-Situ® Version	4.57.5.0
Serial number:	45368
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39365 0.612719907
Test started on:	39365 0.612719907
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	16

TOTAL DATA SAMPLES	16
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sat	Conductivity
10/10/2007	14:42:19	0	16.91	29.504	1335.2	2.941	2	6.71	3.49	36.7178	1231.79
10/10/2007	14:43:39	80	17.02	29.501	1268.9	2.941	-1	6.71	3.28	34.6275	1236.73
10/10/2007	14:45:37	198	16.82	29.496	1224.4	2.941	-4	6.71	3.01	31.6599	1229.77
10/10/2007	14:47:35	316	16.7	29.495	1381.8	2.941	-4	6.71	3.12	32.6896	1223.52
10/10/2007	14:49:32	433	16.94	29.494	1307.5	2.941	-3	6.71	2.99	31.4664	1230.98
10/10/2007	14:51:30	551	16.73	29.492	37.1	2.915	-3	6.71	3.14	32.9479	1226.37
10/10/2007	14:53:28	669	16.87	29.491	36.5	2.915	-2	6.71	3	31.5258	1230.93
10/10/2007	14:55:26	787	16.85	29.489	41.1	2.889	-2	6.71	2.72	28.5958	1228.63
10/10/2007	14:57:24	905	16.99	29.493	32.6	2.889	-1	6.7	2.53	26.6872	1230.59
10/10/2007	14:59:22	1023	17.12	29.493	29	2.941	-1	6.7	2.45	25.9144	1235.56
10/10/2007	15:01:21	1142	17.13	29.49	25.7	2.941	-1	6.7	2.35	24.909	1235.93
10/10/2007	15:03:19	1260	17.11	29.487	22.8	2.941	0	6.7	2.2	23.2252	1235.32
10/10/2007	15:05:17	1378	16.99	29.485	21.8	2.915	0	6.7	2.1	22.161	1230.74
10/10/2007	15:07:15	1496	16.98	29.488	20.4	2.889	0	6.69	2.07	21.7744	1228.78
10/10/2007	15:09:13	1614	17.18	29.488	19.2	2.889	0	6.7	1.85	19.6358	1234.69
10/10/2007	15:11:09	1730	17.17	29.485	18.6	2.863	-1	6.69	1.89	20.0034	1235.04

**Troll 9000**

10/12/07

**Low-Flow System  
ISI Low-Flow Log****Project Information:**

Operator Name Nathan McNurlen  
Company Name URS Corporation  
Project Name Hartford Groundwater Sampling - 21561445 00106  
Site Name HWG

Hartford Groundwater Sampling - 21561445 00106

**Pump Information:**

Pump Model/Type QED Sample Pro  
Tubing Type Polyethylene  
Tubing Diameter 0.17 [in]  
Tubing Length 38 [ft]  
Pump placement from TOC 31.45 [ft]

**Well Information:**

Well Id MP-92D  
Well diameter 2 [in]  
Well total depth 37.8 [ft]  
Depth to top of screen 22.7 [ft]  
Screen length 174 [in]  
Depth to Water 29.46 [ft]

**Pumping information:**

Final pumping rate 160 [mL/min]  
Flowcell volume 286.61 [mL]  
Calculated Sample Rate 108 [sec]  
Sample rate 108 [sec]  
Stabilized drawdown 0.06 [in]

**Low-Flow Sampling Stabilization Summary**

Stabilization Settings		Time	Temp [C]	pH [pH]	Cond [ $\mu$ S/cm]	Turb [NTU]	DO [mg/L]	ORP [mV]
				+/-0.1	+/-0.1	+/-1	+/-0.3	+/-10
Last 5 Readings	9:41:57	15.94	6.69	1043.23	10.89	0.82	-41.42	
	9:43:48	16.06	6.70	1044.50	9.62	0.82	-42.79	
	9:45:40	16.06	6.70	1044.25	8.72	0.75	-43.51	
	9:47:31	16.06	6.70	1043.74	9.88	0.77	-44.28	
	9:49:24	16.10	6.70	1043.74	9.98	0.78	-45.01	
Variance in last 3 readings		9:45:40	0.00	0.00	-0.25	-0.89	-0.07	-0.73
		9:47:31	0.00	0.00	-0.51	1.15	0.02	-0.77
		9:49:24	0.04	0.00	0.00	0.11	0.01	-0.72

**Notes:**

INSTRUCTIONS: This is the raw data export format from the Win-Situ® Low Flow Cell data file:Hartford Groundwater Sampling - 21561445.00106-HWG-MP-92D-10-12-2007.flw To Generate a report insert a new sheet based on a sheet template. See 'Sheet Template' and 'Insert a new sheet that's based on a custom template' in Excel help. An example template, InSituLowFlow.xls, is provided by the Win-Situ® installation. You may copy this template from the templates subfolder in the folder where Win-Situ® is.

Operator Name:	Nathan McNurlen		
Company Name:	URS Corporation		
Project Name:	Hartford Groundwater Sampling - 21561445.00106		
Site Name:	HWG		
Well ID:	MP-92D		

pH Sensor:	Installed	Target Value	0.1 [pH]	Target Percent	0 [%]
ORP Sensor:	Installed	Target Value	10 [mV]	Target Percent	0 [%]
DO Sensor:	Installed	Target Value	0.3 [mg/L]	Target Percent	0 [%]
Cond Sensor:	Installed	Target Value	0.1 [ $\mu$ S/cm]	Target Percent	3 [%]
Turb Sensor:	Installed	Target Value	1 [NTU]	Target Percent	10 [%]

Pump Model/Type:	QED Sample Pro
Tubing Type:	Polyethylene
Tubing Diam:	0.17 [in]
Tubing Length:	38 [ft]
Well Depth:	37.8 [ft]
Well Diam:	2 [in]
Screen Len:	174 [in]
Screen Depth:	22.7 [ft]
Pump Inlet Depth:	0 [in]
Depth to Water:	29.46 [ft]
Pump Level (TOC):	31.45 [ft]

Final Pumping Rate:	160 [mL/min]
Stable Draw Down:	0.06 [in]
Total Volume Formula:	Volume = cup (200 mL) + tubing (169.6 mL) - pH ORP (16 mL) - DO (14 mL) - Cond (13 mL) - Turb (40 mL)
Calculated Total Volume:	286.61 [mL]
Actual Total Volume:	286.61 [mL]
Calculated Measurement Interval:	108 [sec]
Actual Measurement Interval:	108 [sec]

Start date/time:	10/12/2007	9:19:35																																																																																																
End date/time:	10/12/2007	9:50:13																																																																																																
Total Time:	0:30:38																																																																																																	
<hr/>																																																																																																		
<table border="1"> <thead> <tr> <th>Reading #</th> <th>pH [pH]</th> <th>Variance</th> <th>ORP [mV]</th> <th>Variance</th> <th>DO [mg/L]</th> <th>Variance</th> <th>RDO [I]</th> <th>Variance</th> <th>Cond [<math>\mu</math>S/cm]</th> <th>Variance</th> <th>Turb [NTU]</th> <th>Variance</th> <th>Temp [C]</th> <th>Variance</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6.69</td> <td>0</td> <td>-41.42</td> <td>-0.81</td> <td>0.82</td> <td>0.01</td> <td></td> <td></td> <td>1043.23</td> <td>-3.83</td> <td>10.89</td> <td>2.07</td> <td>22:33:36</td> <td>-0.1</td> <td>0.404132</td> </tr> <tr> <td>3</td> <td>6.7</td> <td>0.01</td> <td>-42.79</td> <td>-1.37</td> <td>0.82</td> <td>0.01</td> <td></td> <td></td> <td>1044.5</td> <td>1.27</td> <td>9.62</td> <td>-1.27</td> <td>1:26:24</td> <td>0.12</td> <td>0.405417</td> </tr> <tr> <td>2</td> <td>6.7</td> <td>0</td> <td>-43.51</td> <td>-0.73</td> <td>0.75</td> <td>-0.07</td> <td></td> <td></td> <td>1044.25</td> <td>-0.25</td> <td>8.72</td> <td>-0.89</td> <td>1:26:24</td> <td>0</td> <td>0.406713</td> </tr> <tr> <td>1</td> <td>6.7</td> <td>0</td> <td>-44.28</td> <td>-0.77</td> <td>0.77</td> <td>0.02</td> <td></td> <td></td> <td>1043.74</td> <td>-0.51</td> <td>9.88</td> <td>1.15</td> <td>1:26:24</td> <td>0</td> <td>0.407998</td> </tr> <tr> <td>0</td> <td>6.7</td> <td>0</td> <td>-45.01</td> <td>-0.72</td> <td>0.78</td> <td>0.01</td> <td></td> <td></td> <td>1043.74</td> <td>0</td> <td>9.98</td> <td>0.11</td> <td>2:24:00</td> <td>0.04</td> <td>0.409306</td> </tr> </tbody> </table>			Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time	4	6.69	0	-41.42	-0.81	0.82	0.01			1043.23	-3.83	10.89	2.07	22:33:36	-0.1	0.404132	3	6.7	0.01	-42.79	-1.37	0.82	0.01			1044.5	1.27	9.62	-1.27	1:26:24	0.12	0.405417	2	6.7	0	-43.51	-0.73	0.75	-0.07			1044.25	-0.25	8.72	-0.89	1:26:24	0	0.406713	1	6.7	0	-44.28	-0.77	0.77	0.02			1043.74	-0.51	9.88	1.15	1:26:24	0	0.407998	0	6.7	0	-45.01	-0.72	0.78	0.01			1043.74	0	9.98	0.11	2:24:00	0.04	0.409306
Reading #	pH [pH]	Variance	ORP [mV]	Variance	DO [mg/L]	Variance	RDO [I]	Variance	Cond [ $\mu$ S/cm]	Variance	Turb [NTU]	Variance	Temp [C]	Variance	Time																																																																																			
4	6.69	0	-41.42	-0.81	0.82	0.01			1043.23	-3.83	10.89	2.07	22:33:36	-0.1	0.404132																																																																																			
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1	6.7	0	-44.28	-0.77	0.77	0.02			1043.74	-0.51	9.88	1.15	1:26:24	0	0.407998																																																																																			
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pH Min:	6.69
pH Max:	6.7
ORP Min:	-45.01
ORP Max:	-41.42
DO Min:	0.75
DO Max:	0.82
RDO Min:	
RDO Max:	
Cond Min:	1043.23
Cond Max:	1044.5
Turb Min:	8.72
Turb Max:	10.89
Temp Min:	15.94
Temp Max:	16.1

Notes:	
<b>Device Record:</b>	
In-Situ Inc.	Troll 9000 Pro XP
Report generated:	39378 0.472719907
Report from file:	..\Hartford Groundwater Sampling - 21561445.00106-HWG-MP-92D-10-12-2007.flb.bin
Win-Situ® Version	4.57.5.0
Serial number:	45405
Firmware Version	2.03
Unit name:	MP Troll 9000
Test name:	LowFlow
Test defined on:	39367 0.388599537
Test started on:	39367 0.388599537
Test stopped on:	N/A N/A
Data gathered using Event testing	
Time between data points:	0.0 Seconds.
Time between default storages:	0.0 Seconds.
Monitoring data on channel [1]	
Data stored if delta value exceeds:	0 Celsius
Number of data samples:	17

TOTAL DATA SAMPLES	17
Channel number [1]	
Measurement type:	Temperature
Channel name:	
Channel number [3]	
Measurement type:	Barometric Pressure
Channel name:	
Channel number [4]	
Measurement type:	Turbidity
Channel name:	
Channel number [5]	
Measurement type:	Battery Voltage
Channel name:	
Channel number [11]	
Measurement type:	ORP
Channel name:	
Channel number [12]	
Measurement type:	pH
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen
Channel name:	
Channel number [25]	
Measurement type:	Dissolved Oxygen %Saturation
Channel name:	
Channel number [45]	
Measurement type:	Conductivity, Low Range
Channel name:	

Date	Time	ET (sec)	Chan[1]	Chan[3]	Chan[4]	Chan[5]	Chan[11]	Chan[12]	Chan[25]	Chan[25]	Chan[45]
			Temperature	Barometric	Turbidity	Battery	ORP	pH	Clark DO	Clark DO Sa	Conductivity
10/12/2007	9:19:38	1	15.9	29.668	18.9	2.863	10	6.63	1.48	15,1041	1069.56
10/12/2007	9:21:27	112	15.93	29.668	14.7	2.837	-4	6.65	1.21	12,4281	1070.9
10/12/2007	9:23:20	225	15.96	29.669	11.4	2.863	-14	6.66	1.1	11,2406	1060.02
10/12/2007	9:25:11	336	16.04	29.668	12.4	2.863	-20	6.67	0.81	8,3237	1059.76
10/12/2007	9:27:03	448	16.01	29.669	13	2.889	-25	6.67	1.12	11,4968	1063.45
10/12/2007	9:28:55	560	16.04	29.669	10.5	2.889	-29	6.67	0.86	8,8741	1061.34
10/12/2007	9:30:46	671	16.04	29.67	9	2.811	-32	6.68	0.76	7,8211	1054.8
10/12/2007	9:32:38	783	15.99	29.671	11.6	2.837	-34	6.69	0.9	9,2421	1052.46
10/12/2007	9:34:30	895	16.05	29.672	9.8	2.889	-36	6.69	0.75	7,7413	1049.62
10/12/2007	9:36:22	1007	16.02	29.671	11.2	2.889	-38	6.69	0.72	7,3605	1046.03
10/12/2007	9:38:13	1118	16.02	29.672	11.3	2.889	-39	6.69	0.84	8,6495	1045.27
10/12/2007	9:40:05	1230	16.04	29.673	8.8	2.863	-41	6.7	0.81	8,2946	1047.06
10/12/2007	9:41:57	1342	15.94	29.674	10.9	2.889	-41	6.69	0.82	8,3621	1043.23
10/12/2007	9:43:48	1453	16.06	29.676	9.6	2.889	-43	6.7	0.82	8,4449	1044.5
10/12/2007	9:45:40	1565	16.06	29.676	8.7	2.889	-44	6.7	0.75	7,7059	1044.25
10/12/2007	9:47:31	1676	16.06	29.676	9.9	2.863	-44	6.7	0.77	7,941	1043.74
10/12/2007	9:49:24	1789	16.1	29.674	10	2.889	-45	6.7	0.78	8,0482	1043.74



Quarterly Groundwater Monitoring Report (October 2007)  
The Hartford Working Group / Hartford, IL

**APPENDIXE**

**Four Quarters of Groundwater Analytical Results**



## **APPENDIXE**

## **Four Quarters of Groundwater Analytical Results**

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**E-1**

**BTEX and MTBE**



**Table E-1**  
**Four Quarters of Groundwater Analytical Results - BTEX and MTBE**

**1190505040 -- Madison County -- ILR 000128249**  
**The Hartford Working Group / Hartford, Illinois**

Well ID	Date	Constituent				
		Benzene	Ethylbenzene	Methyl tert-butyl ether	Toluene	Xylene (total)
	TACO Comparison Value	5 ug/L	700 ug/L	70 ug/L	1,000 ug/L	10,000 ug/L
HMW-25	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-25	10/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-25	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-25	7/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-25 <sup>1</sup>	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-25 <sup>1</sup>	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-26	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-26	10/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-26	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-26	7/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-27	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-27	10/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-27	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-27	7/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-28	1/15/2007	2 UR	5 UR	2 U	5 U	5 UR
HMW-28	10/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-28	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-28	7/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-29	1/16/2007	2 U	5 UR	2 U	5 U	5 U
HMW-29	10/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-29	4/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-29	7/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-38C	10/16/2007	173	11.5	2	8	67.4
HMW-38C <sup>1</sup>	10/16/2007	187	12.8	2.1	8.1	73.5
HMW-39B	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-39B	10/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-39B	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-39B	7/23/2007	2 U	5 U	2 U	5 U	5 U
HMW-39C	1/15/2007	2 U	5 U	2 U	5 U	5 U

Table E-1  
Four Quarters of Groundwater Analytical Results - BTEX and MTBE

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent				
		Benzene	Ethylbenzene	Methyl tert-butyl ether	Toluene	Xylene (total)
	TACO Comparison Value	5 ug/L	700 ug/L	70 ug/L	1,000 ug/L	10,000 ug/L
HMW-39C	10/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-39C	4/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-39C	7/20/2007	2 U	5 U	2 U	5 U	5 U
HMW-39C <sup>1</sup>	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-40C	1/16/2007	2 U	5 U	2 U	5 U	5 U
HMW-40C	10/10/2007	2 U	5 U	2 U	5 U	5 U
HMW-40C	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-40C	7/12/2007	2 U	5 U	2 U	5 U	5 U
HMW-40C <sup>1</sup>	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-43C	10/11/2007	21.6	1 J	2 U	7	3.8 J
HMW-44D	10/12/2007	127	5 U	2 U	1.5 J	3.2 J
HMW-44D <sup>1</sup>	10/12/2007	131	5 U	2 U	1.5 J	3.3 J
HMW-47C	10/17/2007	7,220	1,300	170 J	290 J	3,160
HMW-48D	10/17/2007	1,110	250 U	100 U	250 U	250 U
HMW-49B	1/15/2007	73.1	391	10 U	25 U	51.8
HMW-49B	4/16/2007	90	483	10 U	25 U	58.7
HMW-49C	1/16/2007	304	2,220	404	1,600	5,940
HMW-49C	10/18/2007	616	2,820	388	3,960	7,250
HMW-49C	4/16/2007	1,010	1,890	152	310	5,270
HMW-49C	7/18/2007	250	150	317	289	237
HMW-49D	1/16/2007	116	1.8 J	37.2	6.7	10.3
HMW-49D	10/16/2007	949	50 U	79.3	14 J	15 J
HMW-49D	4/16/2007	84.4	1.6 J	44.4	4.7 J	6.7
HMW-49D	7/16/2007	451	1.4 J	81.3	5.2	6.3
HMW-49D <sup>1</sup>	7/16/2007	444	1.5 J	84.6	5.6	6.6
HMW-50A	1/16/2007	2 UR	5 U	2 U	5 U	5 UR
HMW-50A	10/11/2007	2 U	5 U	2 U	5 U	5 U
HMW-50A	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-50A	7/13/2007	2 U	5 U	2 U	5 U	5 U

**Table E-1**  
**Four Quarters of Groundwater Analytical Results - BTEX and MTBE**

**1190505040 -- Madison County -- ILR 000128249**  
**The Hartford Working Group / Hartford, Illinois**

Well ID	Date	Constituent				
		Benzene	Ethylbenzene	Methyl tert-butyl ether	Toluene	Xylene (total)
	TACO Comparison Value	5 ug/L	700 ug/L	70 ug/L	1,000 ug/L	10,000 ug/L
HMW-50B	1/15/2007	2 U	5 UR	2 U	5 U	5 U
HMW-50B	10/11/2007	2 U	5 U	2 U	5 U	5 U
HMW-50B	4/13/2007	0.7 J	5 U	2 U	5 U	5 U
HMW-50B	7/18/2007	2 U	5 U	2 U	5 U	5 U
HMW-50B <sup>1</sup>	1/15/2007	2 U	5 U	2 U	5 U	5 U
HMW-50C	1/16/2007	127	5 U	6.3	8.5	9.1
HMW-50C	10/16/2007	121	5 U	41.6	7.8	9.4
HMW-50C	4/16/2007	141	5 U	7.3	8.2	10.9
HMW-50C	7/16/2007	158	1 J	22.9	10.8	16.5
HMW-50C <sup>1</sup>	4/16/2007	153	5 U	7.8	9	12.9
HMW-50C <sup>1</sup>	7/16/2007	160 S	1 J	23.7	10.9	17.7
HMW-52C	1/17/2007	2 U	5 U	2 U	5 U	5 U
HMW-52C	10/11/2007	2 U	5 U	2 U	5 U	5 U
HMW-52C	4/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-52C	7/13/2007	2 U	5 U	2 U	5 U	5 U
HMW-53C	10/11/2007	84	5 U	2 U	2 J	1.6 J
HMW-54C	10/12/2007	2.5	5 U	2 U	2.1 J	1.6 J
HMW-54C <sup>1</sup>	10/12/2007	2.3	5 U	2 U	1.9 J	1.3 J
MP-59C	10/15/2007	21,400	2,510	1000 U	29,000	13,300
MP-78D	10/11/2007	14,900	2,510	1000 U	23,100	10,900
MP-81C	1/16/2007	2 U	5 U	2 U	5 U	5 U
MP-81C	10/11/2007	2 U	5 U	2 U	5 U	5 U
MP-81C	4/16/2007	2 U	5 U	2 U	5 U	5 U
MP-81C	7/12/2007	2 U	5 U	2 U	5 U	5 U
MP-83C	10/11/2007	11,400	1,770	400 U	20,800	7,850
MP-85D	10/11/2007	4,780	500 U	200 U	110 J	110 J
MP-89A	4/13/2007	2 U	5 U	2 U	5 U	5 U
MP-89A	7/18/2007	2 U	5 U	2 U	5 U	5 U
MP-89C	1/16/2007	2 U	5 U	2 U	5 U	5 U

**Table E-1**  
**Four Quarters of Groundwater Analytical Results - BTEX and MTBE**

1190505040 -- Madison County -- ILR 000128249  
 The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent				
		Benzene	Ethylbenzene	Methyl tert-butyl ether	Toluene	Xylene (total)
	TACO Comparison Value	5 ug/L	700 ug/L	70 ug/L	1,000 ug/L	10,000 ug/L
MP-89C	10/10/2007	2 U	5 U	2 U	5 U	5 U
MP-89C	4/16/2007	2 U	5 U	2 U	5 U	5 U
MP-89C	7/13/2007	2 U	5 U	2 U	5 U	5 U
MP-92D	1/16/2007	2 U	5 U	2 U	5 U	5 U
MP-92D	10/12/2007	2 U	5 U	2 U	5 U	5 U
MP-92D	4/16/2007	2 U	5 U	2 U	5 U	5 U
MP-92D	7/12/2007	2 U	5 U	2 U	5 U	5 U
MP-92D <sup>1</sup>	10/12/2007	2 U	5 U	2 U	5 U	5 U

Notes

[Yellow Box] =Exceeds Screening Criteria

<sup>1</sup> = Denotes Duplicate Sample

U= Not Detected (value preceding "U" denotes detection limit)

J= Estimated value.

R= RPD outside accepted recovery limits

S= Spike Recovery outside accepted recovery limits

All units are in ug/L-micrograms per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives, last amended February 15, 2007. Comparison values used for comparison purposes only.

## **APPENDIXE**

## **Four Quarters of Groundwater Analytical Results**

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**E-2**

### **Metals (Total and Dissolved)**



Table E-2  
Four Quarters of Groundwater Analytical Results - Metals (Total and Dissolved)

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)
TACO Comparison Value		0.006 mg/L	0.006 mg/L	0.05 mg/L	0.05 mg/L	2 mg/L	2 mg/L	0.004 mg/L	0.004 mg/L	0.005 mg/L	0.005 mg/L	0.1 mg/L	0.1 mg/L	1 mg/L	1 mg/L	5 mg/L	5 mg/L
HMW-25	10/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.239	0.21	0.001 U	0.001 U	0.002 U	0.002 U	0.004 J	0.01 U	0.0022 U	0.01 U	0.113	0.02 U
HMW-25	4/13/2007	0.005 U	0.005 U	0.009 J	0.001 J	0.256	0.246	0.001 U	0.001 U	0.0007 J	0.002 U	0.01 U	0.01 U	0.0024 J	0.01 U	0.149	0.0329
HMW-25	7/13/2007	0.0021 U	0.0024 J	0.0009 J	0.003 U	0.245	0.229	0.001 U	0.001 U	0.0005 J	0.0007 J	0.01 U	0.01 U	0.0027 J	0.0029 J	0.328	0.0076 J
HMW-25 <sup>1</sup>	1/15/2007	0.005 U	0.002 J	0.003 U	0.003 U	0.285	0.277	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.02 U	
HMW-25 <sup>1</sup>	4/13/2007	0.005 U	0.005 U	0.0009 J	0.001 J	0.253	0.247	0.001 U	0.001 U	0.002 U	0.0005 J	0.01 U	0.01 U	0.0023 J	0.0036 J	0.0704	0.0353
HMW-26	1/15/2007	0.005 U	0.005 U	0.0044	0.0025 J	0.171	0.163	0.001 U	0.001 U	0.0005 J	0.002 U	0.01 U	0.01 U	0.01 U	0.0025 J	25.3	24.4
HMW-26	10/15/2007	0.005 U	0.005 U	0.002 J	0.0022 J	0.15	0.136	0.001 U	0.001 U	0.0011 J	0.0008 J	0.01 U	0.0064 J	0.01 U	0.01 U	24.8 S	24.8
HMW-26	4/13/2007	0.005 U	0.005 U	0.0042	0.0059	0.204	0.193	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	29.3	33.1
HMW-26	7/13/2007	0.002 U	0.0023 J	0.0039	0.0018 J	0.161	0.139	0.001 U	0.001 U	0.0014 J	0.0014 J	0.01 U	0.01 U	0.01 U	0.01 U	26	24.4
HMW-27	1/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.166	0.158	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.005 J	0.0072 J	3.07	2.58
HMW-27	10/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.0914	0.0851	0.001 U	0.001 U	0.002 U	0.0005 J	0.01 U	0.01 U	0.004 U	0.0044 J	0.0636	0.014 U
HMW-27	4/13/2007	0.005 U	0.005 U	0.0022 J	0.0025 J	0.167	0.156	0.001 U	0.001 U	0.0003 J	0.002 U	0.01 U	0.01 U	0.0051 J	0.0033 J	3.78	2.6
HMW-27	7/13/2007	0.002 U	0.0026 J	0.003 U	0.003 U	0.0995	0.0997	0.001 U	0.001 U	0.0004 J	0.0008 J	0.01 U	0.01 U	0.0067 J	0.008 J	0.418	0.358
HMW-28	1/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.0961	0.0941	0.001 U	0.001 U	0.0004 J	0.002 U	0.01 U	0.01 U	0.0111	0.0115	0.0496	0.02 U
HMW-28	10/16/2007	0.005 U	0.0019 J	0.003 U	0.0007 J	0.0927	0.0878	0.001 U	0.001 U	0.0013 J	0.001 U	0.01 U	0.01 U	0.0093 J	0.0058 U	0.133	0.02 U
HMW-28	4/13/2007	0.005 U	0.005 U	0.0007 J	0.0003 U	0.104	0.0959	0.001 U	0.001 U	0.0006 J	0.0004 J	0.01 U	0.01 U	0.0212	0.0104	0.0922	0.02 U
HMW-28	7/16/2007	0.005 U	0.0029 U	0.003 U	0.003 U	0.0913	0.0973	0.001 U	0.001 U	0.0006 U	0.0005 J	0.01 U	0.01 U	0.0104	0.0037 J	0.101	0.02 U
HMW-29	1/16/2007	0.005 U	0.005 U	0.0018 J	0.001 J	0.126	0.126	0.001 U	0.001 U	0.0006 J	0.002 U	0.01 U	0.0048 J	0.01 U	0.01 U	6.48 S	6.74
HMW-29	10/16/2007	0.0026 J	0.0017 J	0.001 J	0.0016 J	0.114	0.109	0.001 U	0.001 U	0.002 U	0.0008 U	0.01 U	0.01 U	0.0047 J	0.0038 U	4.19	4.6
HMW-29	4/16/2007	0.002 J	0.005 U	0.0044	0.0044	0.136	0.148	0.001 U	0.001 U	0.0008 J	0.0004 J	0.01 U	0.01 U	0.01 U	0.01 U	11.7 S	7.83 S
HMW-29	7/16/2007	0.005 U	0.005 U	0.0022 J	0.0012 J	0.1	0.123	0.001 U	0.001 U	0.0012 U	0.001 J	0.01 U	0.01 U	0.0033 J	0.0044 J	5.07	4.93
HMW-38C	10/16/2007	0.0023 J	0.003 J	0.0322	0.0288	0.254	0.254	0.001 U	0.001 U	0.0012 J	0.0009 U	0.01 U	0.0043 J	0.01 U	0.01 U	31.5	30.1
HMW-38C <sup>1</sup>	10/16/2007	0.0027 J	0.0024 J	0.0329	0.0307	0.291	0.255	0.001 U	0.001 U	0.0003 J	0.0013 U	0.01 U	0.01 U	0.001 U	0.0028 U	32.3	29.7 S
HMW-39B	1/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.229	0.233	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0722	0.02 U
HMW-39B	10/16/2007	0.0033 J	0.0023 J	0.0012 J	0.003 U	0.266	0.248	0.001 U	0.001 U	0.0007 J	0.0003 U	0.01 U	0.0041 J	0.0024 J	0.01 U	1.2	0.02 U
HMW-39B	4/13/2007	0.005 U	0.005 U	0.0013 J	0.0012 J	0.268	0.281	0.001 U	0.001 U	0.002 U	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	0.0437	0.17
HMW-39B	7/23/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.367	0.401	0.001 U	0.001 U	0.0011 U	0.0006 U	0.0046 J	0.01 U	0.0026 U	0.0022 U	0.0223	0.02 U
HMW-39C	1/15/2007	0.005 U	0.0021 J	0.003 U	0.003 U	0.327	0.336	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	3.82	3.26
HMW-39C	10/15/2007	0.005 U	0.005 U	0.0009 J	0.003 U	0.486	0.446	0.001 U	0.001 U	0.002 U	0.0006 J	0.01 U	0.0047 J	0.0022 U	0.01 U	5.64	5.65
HMW-39C	4/16/2007	0.005 U	0.005 U	0.003 U	0.0013 J	0.314	0.275	0.001 U	0.001 U	0.0006 J	0.0005 J	0.01 U	0.01 U	0.01 U	0.01 U	4.47	3.25
HMW-39C	7/20/2007	0.005 U	0.005 U	0.0009 J	0.003 U	0.422	0.447	0.001 U	0.001 U	0.0007 J	0.0012 J	0.01 U	0.01 U	0.0025 J	0.01 U	5.22	5.54
HMW-39C <sup>1</sup>	1/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.341	0.334	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.0023 J	3.9	3.26
HMW-40C	1/16/2007	0.005 U	0.005 U	0.44	0.02	0.843	0.679	0.001 U	0.001 U	0.0003 J	0.0004 J	0.01 U	0.01 U	0.0026 J	0.0022 J	60.1 S	4.65
HMW-40C	10/10/2007	0.005 U	0.005 U	0.017	0.0067	0.46	0.406	0.001 U	0.001 U	0.002 U	0.0003 U	0.01 U	0.0041 J	0.0031 J	0.01 U	3.51	0.796
HMW-40C	4/13/2007	0.005 U	0.005 U	0.111	0.0134	0.512	0.442	0.001 U	0.001 U	0.0004 J	0.0005 J	0.01 U	0.01 U	0.01 U	0.01 U	12.5 S	1.66
HMW-40C	7/12/2007	0.005 U	0.005 U	0.171	0.002 J	0.447	0.345	0.001 U	0.001 U	0.0013 J	0.0014 J	0.01 U	0.01 U	0.0023 U	0.0034 U	25.1	0.337
HMW-40C <sup>1</sup>	4/13/2007	0.005 U	0.005 U	0.0829 S	0.0146	0.513	0.446	0.001 U	0.001 U	0.0004 J	0.0004 J	0.01 U	0.01 U	0.01 U	0.01 U	12.7	1.86
HMW-43C	10/11/2007	0.005 U	0.005 U	0.0236	0.0261	0.165	0.165	0.001 U	0.001 U	0.0005 J	0.0002 U	0.01 U	0.01 U	0.0046 J	0.0038 J	8	7.98
HMW-44D	10/12/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.602	0.565	0.001 U	0.001 U	0.0012 U	0.0004 J	0.0042 J	0.01 U	0.0194	0.0183	11.6	9.82
HMW-44D <sup>1</sup>	10/12/2007	0.005 U	0.005 U	0.0009 J	0.003 U	0.575	0.576	0.001 U	0.001 U	0.0014 J	0.002 U	0.01 U	0.01 U	0.0206	0.0186	11.3	11.6
HMW-47C	10/17/2007	0.005 U	0.005 U	0.0088	0.0052	0.55	0.508	0.001 U	0.001 U	0.0007 U	0.002 U	0.01 U	0.0056 J	0.0046 J	26.6	24.3 S	
HMW-48D	10/17/2007	0.005 U	0.005 U	0.0008 J	0.003 U	0.38	0.374	0.001 U	0.001 U	0.002 U	0.0009 J	0.01 U	0.01 U	0.003 J	0.01 U	26.6	25.2

Table E-2  
Four Quarters of Groundwater Analytical Results - Metals (Total and Dissolved)

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent														
		Lead	Lead (Dissolved)	Manganese	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.0075 mg/L	0.0075 mg/L	0.15 mg/L	0.002 mg/L	0.002 mg/L	0.1 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.049 mg/L	0.049 mg/L	5 mg/L	5 mg/L
HMW-25	10/15/2007	0.0005 U	0.002 U		0.0002 U	0.0002 U	0.0064 J	0.007 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0044 J	0.01 U
HMW-25	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0094 J	0.0089 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0056 J	0.01 U
HMW-25	7/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0067 J	0.0056 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.009 U	0.0174
HMW-25*	1/15/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0095 J	0.0093 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0025 J	0.0028 J
HMW-25*	4/13/2007	0.0055 S	0.002 U		0.0002 U	0.0002 U	0.0093 J	0.0089 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0039 J	0.0022 J
HMW-26	1/15/2007	0.002 U	0.0008 J		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0032 J	0.01 U	0.0033 J	0.0023 J
HMW-26	10/15/2007	0.0007 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.0061 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0029 J	0.01 U
HMW-26	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0044 J	0.0022 J
HMW-26	7/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.004 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0036 J	0.0042 J	0.0112 U	0.0048 J
HMW-27	1/15/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0096 J	0.0105	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0055 J	0.0058 J
HMW-27	10/15/2007	0.0006 U	0.002 U		0.0002 U	0.0002 U	0.0165	0.0208	0.0044 J	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0054 J	0.0035 J
HMW-27	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0092 J	0.0087 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0213	0.0048 J
HMW-27	7/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0129	0.0124	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0186 U	0.007 J
HMW-28	1/15/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0204	0.021	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0077 J	0.0068 J
HMW-28	10/16/2007	0.002 U	0.0008 J		0.0002 U	0.0002 U	0.026	0.0279	0.0071	0.006 U	0.01 U	0.01 U	0.01 U	0.0036 J	0.0051 J	
HMW-28	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0214	0.0199	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0075 J	0.0053 J
HMW-28	7/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0168	0.0146	0.0244	0.006 U	0.01 U	0.01 U	0.01 U	0.0079 U	0.0053 U	
HMW-29	1/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0039 J	0.0041 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0074 J	0.0093 J	0.0063 J
HMW-29	10/16/2007	0.002 U	0.001 J		0.0002 U	0.0002 U	0.0075 U	0.0062 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0099 J
HMW-29	4/16/2007	0.0005 J	0.002 U		0.0002 U	0.0002 U	0.0052 J	0.0044 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0034 J	0.01 U	0.024	0.0075 J
HMW-29	7/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0063 J	0.0071 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0111 U	0.0077 U
HMW-38C	10/16/2007	0.0012 J	0.0018 J		0.0002 U	0.0002 U	0.0069 U	0.0085 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0068 J	0.005 J	0.0433	0.01 U
HMW-38C*	10/16/2007	0.0012 J	0.0018 J		0.0002 U	0.0002 U	0.0033 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0068 J	0.0046 J	0.026	0.0123
HMW-39B	1/15/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0208	0.0234
HMW-39B	10/16/2007	0.001 J	0.002 U		0.0002 U	0.0002 U	0.005 U	0.0038 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.046	0.0319
HMW-39B	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0119	0.0129
HMW-39B	7/23/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0057 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.0051 J	0.023	0.0122
HMW-39C	1/15/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0393	0.0196
HMW-39C	10/15/2007	0.0008 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.0049 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.006 J	0.004 J	
HMW-39C	4/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0291	0.0257
HMW-39C	7/20/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0035 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0151	0.0067 J
HMW-39C*	1/15/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0379	0.0193
HMW-40C	1/16/2007	0.0011 J	0.002 U		0.0002 U	0.0002 U	0.0085 J	0.0054 J	0.116	0.0394	0.01 U	0.01 U	0.01 U	0.0079 J	0.0521	0.0151
HMW-40C	10/10/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0077 J	0.0054 J	0.0038 J	0.006 U	0.01 U	0.01 U	0.007 J	0.01 U	0.0151	0.009 J
HMW-40C	4/13/2007	0.0015 J	0.002 U		0.0002 U	0.0002 U	0.0071 J	0.0049 J	0.0351	0.0084	0.01 U	0.01 U	0.01 U	0.01 U	0.0796	0.0743
HMW-40C	7/12/2007	0.0005 J	0.002 U		0.0002 U	0.0002 U	0.0105	0.0068 J	0.0372	0.006 U	0.01 U	0.01 U	0.0063 J	0.01 U	0.0422	0.0088 J
HMW-40C*	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0067 J	0.0048 J	0.0237 S	0.0091	0.01 U	0.01 U	0.01 U	0.01 U	0.0751	0.0661
HMW-43C	10/11/2007	0.0005 J	0.002 U		0.0002 U	0.0002 U	0.0101 U	0.009 J	0.006 U	0.006 U	0.01 U	0.0041 J	0.0039 J	0.01 U	0.0495	0.015 U
HMW-44D	10/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.005 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.008 U	0.0065 U	
HMW-44D*	10/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0043 J	0.01 U	0.006 U	0.006 U	0.01 U	0.0047 J	0.01 U	0.0089 J	0.0104	
HMW-47C	10/17/2007	0.0146 J	0.01		0.0002 U	0.0002 U	0.0078 U	0.01 U	0.006 U	0.006 U	0.01 U	0.0046 J	0.01 U	0.0282	0.0132	
HMW-48D	10/17/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.0051 J	0.01 U	0.0071 J	0.012	

Table E-2  
Four Quarters of Groundwater Analytical Results - Metals (Total and Dissolved)

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent														Cobalt (Dissolved)	Iron (Dissolved)
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt			
TACO Comparison Value		0.006 mg/L	0.006 mg/L	0.05 mg/L	0.05 mg/L	2 mg/L	2 mg/L	0.004 mg/L	0.004 mg/L	0.005 mg/L	0.005 mg/L	0.1 mg/L	0.1 mg/L	1 mg/L	1 mg/L	5 mg/L	5 mg/L
HMW-49B	1/15/2007	0.005 U	0.005 U	0.0187	0.0189	0.64	0.63	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.0072 J	0.0077 J	30.3	28.7
HMW-49B	4/16/2007	0.005 U	0.005 U	0.0256	0.0254	0.74	0.694	0.001 U	0.001 U	0.001 J	0.0005 J	0.01 U	0.0045 J	0.0095 J	0.0061 J	29.5	26
HMW-49C	1/16/2007	0.005 U	0.005 U	0.0055	0.0027 J	0.38	0.315	0.0003 J	0.001 U	0.0014 J	0.0003 J	0.0237	0.01 U	0.011	0.0034 J	31.4	17.4
HMW-49C	10/18/2007	0.005 U	0.005 U	0.0049 J	0.0053	0.473	0.378	0.001 U	0.001 U	0.0036	0.0023 U	0.006 J	0.01 U	0.0022 J	0.0037 J	23 S	19.2 S
HMW-49C	4/16/2007	0.005 U	0.005 U	0.0031	0.0045	0.332	0.278	0.001 U	0.001 U	0.0086	0.0005 J	0.0052 J	0.004 J	0.0054 J	0.0076 J	13	8.47
HMW-49C	7/18/2007	0.005 U	0.005 U	0.0066	0.0066	0.767	0.414	0.0016	0.001 U	0.0122	0.0011 U	0.0806	0.01 U	0.0233	0.0027 J	54.6	5.59
HMW-49D	1/16/2007	0.005 U	0.005 U	0.0011 J	0.003 U	0.325	0.282	0.001 U	0.001 U	0.0008 J	0.0004 J	0.01 U	0.01 U	0.0034 J	0.01 U	32.4	28.1
HMW-49D	10/16/2007	0.0024 J	0.0028 J	0.0008 J	0.0008 J	0.284	0.257	0.001 U	0.001 U	0.002 U	0.001 U	0.01 U	0.0042 J	0.01 U	0.0033 U	27.9	25
HMW-49D	4/16/2007	0.005 U	0.005 U	0.0008 J	0.0011 J	0.298	0.303	0.0003 J	0.001 U	0.0012 J	0.0005 J	0.0046 J	0.01 U	0.0083 J	0.0022 J	31.6	28
HMW-49D	7/16/2007	0.0018 U	0.005 U	0.003 U	0.003 U	0.296	0.277	0.0003 J	0.001 U	0.0016 U	0.001 U	0.01 U	0.0047 J	0.0027 J	26	25	
HMW-49D <sup>1</sup>	7/16/2007	0.005 U	0.0021 U	0.003 U	0.003 U	0.256	0.273	0.001 U	0.001 U	0.001 U	0.0011 U	0.01 U	0.01 U	0.0025 J	25.6	24.5	
HMW-50A	1/16/2007	0.005 U	0.005 U	0.0009 J	0.003 U	0.0484	0.0409	0.001 U	0.001 U	0.0013 J	0.0006 J	0.0288	0.0309	0.01 U	0.01 U	0.852	0.02 U
HMW-50A	10/11/2007	0.005 U	0.005 U	0.0014 J	0.002 J	0.0571	0.0476	0.001 U	0.001 U	0.002 U	0.002 U	0.0045 J	0.0049 J	0.01 U	0.0035 J	0.659	0.0075 J
HMW-50A	4/13/2007	0.005 U	0.005 U	0.0026 J	0.0045 J	0.0588	0.0395	0.001 U	0.001 U	0.0005 J	0.002 U	0.0142	0.0117	0.0022 J	0.01 U	1.52	0.02 U
HMW-50A	7/13/2007	0.003 U	0.0027 J	0.0015 J	0.0007 J	0.0538	0.0356	0.001 U	0.001 U	0.0005 J	0.0004 J	0.0048 J	0.01 U	0.0024 J	0.01 U	1.2	0.02 U
HMW-50B	1/15/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.351	0.312	0.001 U	0.001 U	0.0003 J	0.0002 U	0.0042 J	0.01 U	0.01 U	0.01 U	9.26	4
HMW-50B	10/11/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.161	0.17	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.0046 J	0.01 U	0.01 U	3.09	3.17
HMW-50B	4/13/2007	0.005 U	0.005 U	0.0013 J	0.0023 J	0.335	0.308	0.001 U	0.001 U	0.002 U	0.002 U	0.0042 J	0.01 U	0.01 U	0.01 U	8.11 S	6.58
HMW-50B	7/18/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.282	0.298	0.001 U	0.001 U	0.0007 J	0.0011 U	0.005 J	0.01 U	0.0038 J	0.0022 J	5.66	6.02
HMW-50B <sup>1</sup>	1/15/2007	0.005 U	0.0028 J	0.001 J	0.003 U	0.352	0.311	0.001 U	0.001 U	0.0006 J	0.002 U	0.0071 J	0.01 U	0.01 U	0.01 U	9.4 S	4.02
HMW-50C	1/16/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.255	0.246	0.001 U	0.001 U	0.0005 J	0.0004 J	0.0042 J	0.01 U	0.0026 J	0.01 U	4.14	1.18
HMW-50C	10/16/2007	0.0024 J	0.0036 J	0.003 U	0.003 U	0.266	0.242	0.001 U	0.001 U	0.002 U	0.002 U	0.01 U	0.01 U	0.01 U	0.01 U	3.15	1.92
HMW-50C	4/16/2007	0.005 U	0.005 U	0.003 U	0.0018 J	0.262	0.292	0.001 U	0.001 U	0.0005 J	0.0003 J	0.01 U	0.0044 J	0.01 U	0.0022 J	13	8.81
HMW-50C	7/16/2007	0.005 U	0.0017 U	0.003 U	0.003 U	0.25	0.258	0.001 U	0.001 U	0.0002 U	0.0003 J	0.01 U	0.01 U	0.0033 J	0.01 U	5.69	3.1
HMW-50C <sup>1</sup>	4/16/2007	0.005 U	0.005 U	0.003 U	0.0011 J	0.268	0.248	0.001 U	0.001 U	0.0005 J	0.0018 J	0.01 U	0.0046 J	0.01 U	0.0034 J	12.4	8.64
HMW-50C <sup>1</sup>	7/16/2007	0.005 U	0.005 U	0.003 U	0.003 U	0.236	0.259	0.001 U	0.001 U	0.0008 U	0.0016 U	0.01 U	0.01 U	0.0024 J	5.45	3.06	
HMW-52C	1/17/2007	0.005 U	0.005 U	0.0067	0.0022 J	0.507	0.397	0.0003 J	0.001 U	0.002	0.002 U	0.0159	0.01 U	0.0073 J	0.01 U	34 S	17.8 S
HMW-52C	10/11/2007	0.005 U	0.005 U	0.0026 J	0.002 J	0.402	0.4	0.001 U	0.001 U	0.0005 J	0.0002 U	0.01 U	0.01 U	0.0033 J	0.01 U	18.9	17.2
HMW-52C	4/13/2007	0.005 U	0.005 U	0.005	0.0026 J	0.462	0.31	0.0004 J	0.001 U	0.0022	0.002 U	0.0197	0.01 U	0.0085 J	0.01 U	30.6	16.1
HMW-52C	7/13/2007	0.0021 U	0.0019 J	0.0044	0.0015 J	0.426	0.312	0.0003 J	0.001 U	0.002	0.0011 J	0.0088 J	0.01 U	0.0076 J	0.01 U	22.6 S	12.4
HMW-53C	10/11/2007	0.005 U	0.005 U	0.003 U	0.001 J	0.333	0.338	0.001 U	0.001 U	0.0008 J	0.0002 U	0.004 J	0.0091 J	0.01 U	0.01 U	4.53	4.6
HMW-54C	10/12/2007	0.005 U	0.005 U	0.0008 J	0.003 U	0.456	0.468	0.001 U	0.001 U	0.0002 U	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	5.43 S	5.76
HMW-54C <sup>1</sup>	10/12/2007	0.005 U	0.005 U	0.003 U	0.0008 J	0.442	0.44	0.001 U	0.001 U	0.0003 J	0.0002 U	0.01 U	0.01 U	0.01 U	0.01 U	5.34	5.16
MP-59C	10/15/2007	0.0018 J	0.0022 J	0.0839	0.0859	0.622	0.6	0.001 U	0.001 U	0.0008 J	0.002 U	0.01 U	0.0055 J	0.0037 U	0.01 U	31.4	34.2
MP-78D	10/11/2007	0.005 U	0.005 U	0.0251	0.0293	0.277	0.267	0.001 U	0.001 U	0.0009 J	0.001 J	0.0046 J	0.01 U	0.01 U	0.01 U	27.2	26.2
MP-81C	1/16/2007	0.005 U	0.005 U	0.003 U	0.0663	0.0646	0.001 U	0.001 U	0.0006 J	0.0005 J	0.01 U	0.01 U	0.0088 J	0.0092 J	0.205	0.012 J	
MP-81C	10/11/2007	0.005 U	0.005 U	0.0011 J	0.003 U	0.0712	0.0732	0.001 U	0.001 U	0.0002 U	0.00046 J	0.0057 J	0.0048 J	0.0041 J	0.0711	0.0454	
MP-81C	4/16/2007	0.005 U	0.005 U	0.0021 J	0.003 U	0.0918	0.0698	0.001 U	0.001 U	0.0006 J	0.0003 J	0.0044 J	0.01 U	0.0108	0.0091 J	1.35	0.0212
MP-81C	7/12/2007	0.0025 U	0.005 U	0.003 U	0.003 U	0.0646	0.0592	0.001 U	0.001 U	0.0003 J	0.0008 J	0.01 U	0.01 U	0.0022 U	0.0022 U	0.0426	0.02 U
MP-83C	10/11/2007	0.005 U	0.005 U	0.0017 J	0.0023 J	0.376	0.357	0.001 U	0.001 U	0.0004 J	0.0003 J	0.01 U	0.01 U	0.01 U	0.01 U	16.8	15.8
MP-85D	10/11/2007	0.005 U	0.005 U	0.003 U	0.0007 J	0.456	0.48	0.001 U	0.001 U	0.0007 J	0.0002 U	0.0042 J	0.01 U	0.01 U	0.01 U	26.8	27.7
MP-89A	7/18/2007	0.005 U		0.003 U		0.0519		0.001 U		0.002 U		0.01 U		0.01 U		0.222	
MP-89A	7/23/2007		0.005 U		0.0007 J		0.0661		0.001 U		0.0006 U		0.01 U		0.0044 U		0.02 U

Table E-2  
Four Quarters of Groundwater Analytical Results - Metals (Total and Dissolved)

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent														
		Lead	Lead (Dissolved)	Manganese	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.0075 mg/L	0.0075 mg/L	0.15 mg/L	0.002 mg/L	0.002 mg/L	0.1 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.049 mg/L	0.049 mg/L	5 mg/L	5 mg/L
HMW-49B	1/15/2007	0.0027	0.0016 J		0.0002 U	0.0002 U	0.0057 J	0.0062 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0053 J	0.0048 J	0.0097 J	0.0034 J
HMW-49B	4/16/2007	0.0007 J	0.002 U		0.0002 U	0.0002 U	0.0082 J	0.0046 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0071 J	0.0026 J
HMW-49C	1/16/2007	0.0226	0.0129		0.0002 U	0.0002 U	0.0233	0.0046 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0312	0.0087 J	0.496	0.0806
HMW-49C	10/18/2007	0.0214	0.015		0.0002 U	0.0002 U	0.0096 J	0.0059 J	0.006 U	0.006 U	0.01 U	0.0037 J	0.0174	0.01 U	0.733	0.227
HMW-49C	4/16/2007	0.0035	0.0009 J		0.0002 U	0.0002 U	0.0126	0.0135	0.006 U	0.006 U	0.01 U	0.01 U	0.0067 J	0.01 U	0.897	1.02
HMW-49C	7/18/2007	0.038	0.0113		0.00006 J	0.0002 U	0.0773	0.0059 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0915	0.0032 J	0.562	0.0201
HMW-49D	1/16/2007	0.0044	0.002 U		0.0002 U	0.0002 U	0.005 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0037 J	0.0059 J	0.0587	0.0032 J
HMW-49D	10/16/2007	0.002 U	0.0009 J		0.0002 U	0.0002 U	0.0034 U	0.0033 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0078 J	0.01 U	0.0083 J	0.01 U
HMW-49D	4/16/2007	0.0008 J	0.002 U		0.0002 U	0.0002 U	0.0079 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0059 J	0.01 U	0.0332	0.01 U
HMW-49D	7/16/2007	0.0007 J	0.002 U		0.0002 U	0.0002 U	0.0038 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0037 J	0.01 U	0.0206 U	0.01 U
HMW-49D <sup>1</sup>	7/16/2007	0.0006 J	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0135 U	0.01 U
HMW-50A	1/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0038 J	0.01 U	0.0054 J	0.0056 J	0.01 U	0.01 U	0.0056 J	0.0068 J	0.0059 J	0.0039 J
HMW-50A	10/11/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.006 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0098 J	0.0068 J	0.0105 U	0.009 U
HMW-50A	4/13/2007	0.0006 J	0.002 U		0.0002 U	0.0002 U	0.0063 J	0.01 U	0.006 U	0.0036 J	0.01 U	0.01 U	0.007 J	0.0033 J	0.0123	0.0023 J
HMW-50A	7/13/2007	0.0004 J	0.002 U		0.0002 U	0.0002 U	0.0042 J	0.01 U	0.006 J	0.006 U	0.01 U	0.01 U	0.0048 J	0.0042 J	0.0104 U	0.0256
HMW-50B	1/15/2007	0.0017 J	0.002 U		0.0002 U	0.0002 U	0.0045 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.008 J	0.01 U	0.018	0.0063 J
HMW-50B	10/11/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0046 U	0.0034 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0069 U	0.0057 U
HMW-50B	4/13/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0032 J	0.01 U	0.0041 J	0.0032 J
HMW-50B	7/18/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0034 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0061 U	0.0098 J
HMW-50B <sup>1</sup>	1/15/2007	0.0042	0.002 U		0.0002 U	0.0002 U	0.0045 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0075 J	0.0039 J	0.0364	0.004 J
HMW-50C	1/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0078 J	0.0042 J	0.0277 J	
HMW-50C	10/16/2007	0.002 U	0.0006 J		0.0002 U	0.0002 U	0.01 U	0.0052 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0115	0.01 U	0.0053 J	0.01 U
HMW-50C	4/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0054 J	0.01 U
HMW-50C	7/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 R	0.01 U	0.01 U	0.01 U	0.01 U	0.0146 U	0.0026 U
HMW-50C <sup>1</sup>	4/16/2007	0.0002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0038 J
HMW-50C <sup>1</sup>	7/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0168 U	0.0059 U
HMW-52C	1/17/2007	0.0268	0.002 U		0.0002 U	0.0002 U	0.0177	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0293	0.01 U	0.374	0.004 J
HMW-52C	10/11/2007	0.0026	0.002 U		0.0002 U	0.0002 U	0.0069 U	0.0037 J	0.006 U	0.006 U	0.01 U	0.01 U	0.0084 J	0.0065 J	0.0633	0.0065 U
HMW-52C	4/13/2007	0.0221	0.002 U		0.0002 U	0.0002 U	0.0213	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0305	0.01 U	0.387	0.0025 J
HMW-52C	7/13/2007	0.0098	0.002 U		0.0002 U	0.0002 U	0.0129	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0195	0.01 U	0.183 U	0.01 U
HMW-53C	10/11/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.0039 J	0.006 U	0.006 U	0.0032 J	0.01 U	0.004 J	0.01 U	0.0144 U	0.0099 U
HMW-54C	10/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.005 U	0.006 U	0.006 U	0.0043 U	0.01 U	0.01 U	0.01 U	0.0106 U	0.0102 U
HMW-54C <sup>1</sup>	10/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0049 J	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0071 J	0.0051 J
MP-59C	10/15/2007	0.0386	0.0318		0.0002 U	0.0002 U	0.0055 J	0.0099 J	0.0042 J	0.006 U	0.01 U	0.01 U	0.01 U	0.0059 J	0.01 U	
MP-78D	10/11/2007	0.0041	0.0034		0.0002 U	0.0002 U	0.0041 U	0.01 U	0.0084	0.0037 J	0.01 U	0.01 U	0.0054 J	0.0053 J	0.0044 U	0.0051 U
MP-81C	1/16/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0232	0.0222	0.006 U	0.006 U	0.01 U	0.01 U	0.0081 J	0.0068 J		
MP-81C	10/11/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.023	0.0232	0.006 U	0.006 U	0.01 U	0.01 U	0.0048 J	0.01 U	0.0114 U	0.0115 U
MP-81C	4/16/2007	0.0006 J	0.002 U		0.0002 U	0.0002 U	0.0267	0.0246	0.006 U	0.006 U	0.01 U	0.01 U	0.0053 J	0.01 U	0.0123	0.0073 J
MP-81C	7/12/2007	0.002 U	0.0006 J		0.0002 U	0.0002 U	0.0147	0.0157	0.0407	0.0276	0.01 U	0.01 U	0.01 U	0.01 U	0.0159	0.0076 J
MP-83C	10/11/2007	0.0014 J	0.0013 J		0.0002 U	0.0002 U	0.0041 U	0.0033 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0092 U	0.0048 U
MP-85D	10/11/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.01 U	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0041 J	0.0057 J	0.013 U	0.0058 U
MP-89A	7/18/2007	0.002 U			0.0002 U		0.0034 J		0.006 U		0.01 U		0.01 U		0.127	
MP-89A	7/23/2007		0.0004 J			0.0002 U		0.01 U		0.006 U		0.01 U		0.0047 J		0.129

Table E-2  
Four Quarters of Groundwater Analytical Results - Metals (Total and Dissolved)

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent															
		Antimony	Antimony (Dissolved)	Arsenic	Arsenic (Dissolved)	Barium	Barium (Dissolved)	Beryllium	Beryllium (Dissolved)	Cadmium	Cadmium (Dissolved)	Chromium	Chromium (Dissolved)	Cobalt	Cobalt (Dissolved)	Iron	Iron (Dissolved)
TACO Comparison Value		0.006 mg/L	0.006 mg/L	0.05 mg/L	0.05 mg/L	2 mg/L	2 mg/L	0.004 mg/L	0.004 mg/L	0.005 mg/L	0.005 mg/L	0.1 mg/L	0.1 mg/L	1 mg/L	1 mg/L	5 mg/L	5 mg/L
MP-89C	1/16/2007	0.005 U	0.005 U	0.0053	0.0026 J	0.29	0.148	0.001 U	0.001 U	0.0005 J	0.0003 J	0.0044 J	0.01 U	0.0049 J	0.0033 J	41.9	28.4
MP-89C	10/10/2007	0.005 U	0.005 U	0.0012 J	0.001 J	0.0389	0.0387	0.001 U	0.001 U	0.001 U	0.0012 U	0.0055 J	0.0055 J	0.0219	0.0248	5.14	4.78
MP-89C	4/16/2007	0.005 U	0.005 U	0.0974	0.0561	0.35	0.159	0.001 U	0.001 U	0.0015 J	0.0005 J	0.0075 J	0.01 U	0.0074 J	0.0033 J	45.1	27.6
MP-89C	7/13/2007	0.0035 U	0.003 J	0.005	0.0022 J	0.166	0.0586	0.0003 J	0.001 U	0.0025	0.0012 J	0.0053 J	0.01 U	0.0303	0.0219	23	12.6
MP-92D	1/16/2007	0.005 U	0.0021 J	0.0026 J	0.0023 J	0.184	0.165	0.001 U	0.001 U	0.0005 J	0.0004 J	0.0051 J	0.004 J	0.0036 J	0.0029 J	8.2	7.05 S
MP-92D	10/12/2007	0.005 U	0.005 U	0.0048	0.0025 J	0.168	0.174	0.001 U	0.001 U	0.0013 U	0.0007 J	0.01 U	0.01 U	0.01 U	0.003 J	5.21	5.41
MP-92D	4/16/2007	0.005 U	0.005 U	0.0015 J	0.0039	0.206	0.173	0.001 U	0.001 U	0.0008 J	0.0005 J	0.0082 J	0.0041 J	0.0055 J	0.0033 J	11.2 S	6.29
MP-92D	7/12/2007	0.005 U	0.005 U	0.0063	0.0056	0.154	0.164	0.001 U	0.001 U	0.0011 J	0.0009 J	0.01 U	0.01 U	0.0046 U	0.0053 U	9.23	9.07 S
MP-92D <sup>1</sup>	10/12/2007	0.005 U	0.005 U	0.0053	0.0052	0.168	0.172	0.001 U	0.001 U	0.0005 J	0.0005 J	0.01 U	0.01 U	0.01 U	0.0048 J	5.22	5.22

Table E-2  
Four Quarters of Groundwater Analytical Results - Metals (Total and Dissolved)

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group / Hartford, Illinois

Well ID	Date	Constituent														
		Lead	Lead (Dissolved)	Manganese	Mercury	Mercury (Dissolved)	Nickel	Nickel (Dissolved)	Selenium	Selenium (Dissolved)	Silver	Silver (Dissolved)	Vanadium	Vanadium (Dissolved)	Zinc	Zinc (Dissolved)
TACO Comparison Value		0.0075 mg/L	0.0075 mg/L	0.15 mg/L	0.002 mg/L	0.002 mg/L	0.1 mg/L	0.1 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.05 mg/L	0.049 mg/L	0.049 mg/L	5 mg/L	5 mg/L
MP-89C	1/16/2007	0.0039	0.002 U		0.0002 U	0.0002 U	0.0116	0.006 J	0.0132	0.006 U	0.01 U	0.01 U	0.0097 J	0.01 U	0.0182	0.0034 J
MP-89C	10/10/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0631	0.06	0.0347	0.0595	0.01 U	0.01 U	0.01 U	0.01 U	0.0171	0.013
MP-89C	4/16/2007	0.0058	0.002 U		0.0002 U	0.0002 U	0.0167	0.0072 J	0.0099	0.006 U	0.01 U	0.01 U	0.0155	0.01 U	0.035	0.0173
MP-89C	7/13/2007	0.0025	0.002 U		0.0002 U	0.0002 U	0.0623	0.0471	0.273	0.26	0.01 U	0.01 U	0.0136	0.01 U	0.0436 U	0.0107
MP-92D	1/16/2007	0.0012 J	0.002 U		0.0002 U	0.0002 U	0.0057 J	0.0038 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0138	0.0033 J
MP-92D	10/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0034 U	0.0041 U	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.0135 U	0.0119 U
MP-92D	4/16/2007	0.0037	0.002 U		0.0002 U	0.0002 U	0.0108	0.01 U	0.006 U	0.006 U	0.01 U	0.01 U	0.0136	0.01 U	0.0244	0.0037 J
MP-92D	7/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0048 J	0.0049 J	0.006 U	0.006 U	0.01 U	0.003 J	0.01 U	0.01 U	0.005 J	0.0036 J
MP-92D <sup>1</sup>	10/12/2007	0.002 U	0.002 U		0.0002 U	0.0002 U	0.0037 J	0.0037 J	0.006 U	0.006 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 J	0.0052 J

Notes

=Exceeds Screening Criteria

<sup>1</sup> = Denotes Duplicate Sample

U= Not Detected (value preceding "U" denotes detection limit)

J= Estimated value.

R= RPD outside accepted recovery limits

S= Spike Recovery outside accepted recovery limits

All units are in mg/L-milligrams per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives, last amended February 15, 2007. Comparison values used for comparison purposes only.

## **APPENDIXE**

## **Four Quarters of Groundwater Analytical Results**

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E-3

### **General Chemistry and Natural Attenuation Parameters**



Table E-3  
Four Quarters of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group/ Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO <sub>3</sub> )	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO <sub>3</sub> )	Nitrate	Nitrate plus Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids (TDS)	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		(mg/L)	(mg/L)	(mg/L)	200 mg/L	0.2 mg/L	(mg/L)	10 mg/l	(mg/L)	(mg/L)	(mg/L)	(mg/L)	400 mg/L	(mg/L)	(mg/L)	(mg/L)	(mg/L)
HMW-25	1/15/2007	476	0.1 U	12 J	78	0.007 U	510	0.171	0.176	0.01 U	0.02 U	0.02 U	66	0.05 U	680	0.7 J	6 U
HMW-25	10/15/2007	458	0.1 U	20 U	40	0.007 U	400	0.02 J	0.02 J	0.01 U	0.025	0.018 U	39	0.02 J	548	1.8	6 U
HMW-25	4/13/2007	432	0.1 U	20 U	67	0.007 U	460	0.05 U	0.05 U	0.05 U	0.018 U	0.018 U	40	0.04 J	618	0.7 J	6 U
HMW-25	7/13/2007	504	0.1 U	11 J	63	0.007 UJ	460	0.049 J	0.049 U	0.01 U	0.11	0.045	40 U	0.18 J	652	5.6	6 U
HMW-25 <sup>1</sup>	1/15/2007	472	0.1 U	10 J	77	0.007 U	500	0.138	0.143	0.01 U	0.022	0.013 J	62	0.05 U	690	0.7 J	6 U
HMW-25 <sup>1</sup>	4/13/2007	436	0.1 U	20 U	66	0.007 U	400	0.027 J	0.027 J	0.05 U	0.018 U	0.018 U	42	0.08	620	0.9 J	6 U
HMW-26	1/15/2007	602	0.15	30	108 S	0.007 U	790	0.05 U	0.05 U	0.01 U	0.383	0.356	182	0.05 U	1090	1.6	39
HMW-26	10/15/2007	600	0.26	93	69	0.007 U	760	0.02 J	0.02 J	0.01 U	0.314	0.293	252	0.34 J	1070	2.4	50
HMW-26	4/13/2007	598	0.29	17 J	201	0.007 U	1070	0.05 U	0.05 U	0.025 J	0.252	0.247	550	0.02 J	1580	1.4	37
HMW-26	7/13/2007	612	0.3 U	20 U	115	0.007 U	990	0.017 J	0.017 U	0.01 U	0.326	0.285	381	0.05 J	1420	2	61
HMW-27	1/15/2007	614	0.1 U	30	24	0.007 U	840	0.052	0.055	0.01 U	0.042	0.025	139	0.05 U	856	2.7	6 U
HMW-27	10/15/2007	624	0.1 U	20 U	4	0.007 U	640	0.36	0.36	0.01 U	0.074	0.057	90	0.02 J	790	3.7	6 U
HMW-27	4/13/2007	628	0.1 U	20 U	18	0.007 U	720	0.05 U	0.05 U	0.05 U	0.162	0.018 U	109	0.04 J	800	2.7	7
HMW-27	7/13/2007	620	0.1 U	20 U	5	0.007 U	690	0.195	0.195	0.01 U	0.027	0.022	116	0.05 U	790	3.2	6 U
HMW-28	1/15/2007	534	0.1 US	21	30	0.007 U	610	2.18	2.25	0.089	0.035	0.012 J	79	0.05 U	698	3.3	6 U
HMW-28	10/16/2007	524	0.1 U	145	23	0.007 U	580	0.286	0.3	0.01	0.083	0.026	5 U	0.04 J	748	3.5	6 U
HMW-28	4/13/2007	520	0.1 U	12 J	27 S	0.007 U	680	0.797	0.861 S	0.064 S	0.029	0.018 U	101	0.08	720	2.6	6 U
HMW-28	7/16/2007	524	0.1 U	24	17	0.007 U	600	1.27	1.28	0.02	0.074 U	0.023 U	138	0.01 J	738	5.5 U	6 U
HMW-29	1/16/2007	478	0.1 U	20 U	13	0.007 U	530	0.05 U	0.05 U	0.01 U	0.074	0.072	84	0.05 U	608	1.1	14
HMW-29	10/16/2007	504	0.04 J	20 U	26	0.007 U	620	0.01 J	0.01 J	0.01 U	0.1	0.052	182	0.04 J	810	1.6	11
HMW-29	4/16/2007	472	0.1 J	20 U	15	0.007 US	560	0.05 U	0.014 J	0.02 J	0.145	0.078	159	0.05 US	746	10.7 S	29
HMW-29	7/16/2007	506	0.04 U	14 J	31	0.007 U	590	0.033 J	0.033 U	0.01 U	0.097 U	0.074 U	128	0.02 J	698	2.3 U	13
HMW-38C	10/16/2007	668	0.24	25 J	53	0.007 U	620	0.02 J	0.02 J	0.01 U	0.366	0.34	1 J	0.1	732	5.9	51
HMW-38C <sup>1</sup>	10/16/2007	668	0.25	66 J	51	0.007 U	640	0.67 J	0.67 J	0.01 U	0.323	0.308	5 U	0.13	724	6.3	61
HMW-39B	1/15/2007	362	0.1 U	16 J	153	0.007 U	330	0.732	0.732	0.01 U	0.05	0.02 U	54	0.05 U	632	0.9 J	6 U
HMW-39B	10/16/2007	236	0.08 J	30	495	0.007 U	220	0.05	0.05	0.01 U	0.166	0.052	21	0.05	1040	1 U	12
HMW-39B	4/13/2007	300	0.1 U	28	296	0.007 U	310	0.693	0.693 S	0.05 US	0.018 U	0.018 U	26	0.05 J	724	1 U	6 U
HMW-39B	7/23/2007					0.007 U					0.053						
HMW-39C	1/15/2007	255	0.12	23	220	0.007 U	330	0.013 J	0.016 J	0.01 U	0.337	0.235	48	0.05 U	606	0.6 J	9
HMW-39C	10/15/2007	234	0.33	26	227	0.007 U	340	0.02 J	0.02 J	0.01 U	0.263	0.226	17	0.16	656	0.7 J	14
HMW-39C	4/16/2007	245	0.33	20 U	133	0.007 U	210	0.019 J	0.019 J	0.05 U	0.404	0.31	14	0.05 U	468	2.2	23
HMW-39C	7/20/2007	228	0.31	17 J	221	0.007 U	350	0.101	0.101	0.01 U	0.359	0.292	40 U	0.05 U	640	1.6 U	13
HMW-39C <sup>1</sup>	1/15/2007	252	0.14	23	219	0.007 U	290	0.05 U	0.011 J	0.01 U	0.317	0.235	46	0.05 U	612	0.5 J	8
HMW-40C	1/16/2007	424	0.1 U	16 J	18	0.007 U	480	0.098	0.129	0.04	0.446	0.02 U	50	0.46 S	490	3.5	156
HMW-40C	10/10/2007	340	0.1 U	20 U	15	0.007 U	320	0.35	0.35	0.01 U	0.089	0.08	18	0.03 J	386	0.8 U	10
HMW-40C	4/13/2007	386	0.1 U	17 J	15	0.007 U	370	0.818 H	0.836 H	0.018 J	0.045	0.018 U	265	0.02 J	454	1.9	27
HMW-40C	7/12/2007	326	0.1 U	19 J	23	0.007 U	370	1.81	1.86	0.05	0.208	0.034 U	40 U	0.19	386	2.5	71
HMW-40C <sup>1</sup>	4/13/2007	390	0.1 U	12 J	14	0.007 U	360	0.974	0.991	0.017 J	0.035	0.018 U	313	0.02 J	446	2.2	28
HMW-43C	10/11/2007	436	0.21	12 J	23	0.007 U	500	0.11	0.11	0.01 U	0.134	0.112	76	0.06	654	2.4	15

Table E-3  
Four Quarters of Groundwater Analytical Results - General Chemistry and Natural Attenuation Parameters

1190505040 -- Madison County -- ILR 000128249  
The Hartford Working Group/ Hartford, Illinois

Well ID	Date	Constituent															
		Alkalinity (as CaCO <sub>3</sub> )	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO <sub>3</sub> )	Nitrate	Nitrate plus Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids (TDS)	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		(mg/L)	(mg/L)	(mg/L)	200 mg/L	0.2 mg/L	(mg/L)	10 mg/l	(mg/L)	(mg/L)	(mg/L)	(mg/L)	400 mg/L	(mg/L)	(mg/L)	(mg/L)	
HMW-44D	10/12/2007	590	0.19 U	14 J	27	0.007 UJ	540	0.02 U	0.02 U	0.01 U	0.306	0.306	28 J	0.09 U	660	6.3	18
HMW-44D <sup>1</sup>	10/12/2007	592	0.19	9 J	27	0.007 U	520	0.02 J	0.02 J	0.01 U	0.299	0.33	27	0.02 J	678	6.2	16
HMW-47C	10/17/2007	572	0.1 U	62	232	0.007 U	620	0.14	0.14	0.01 U	1.3 J	1.2	2 J	0.08	1020	6.5	135
HMW-48D	10/17/2007	452	0.22	39	71	0.007 U	460	0.97	0.97	0.01 U	0.46	0.471	2 J	0.03 J	576	9.2	48
HMW-49B	1/15/2007	746	0.1 U	64	457 S	0.007 U	1080	0.05 U	0.05 U	0.01 U	0.659	0.624	47 S	0.4	1500	1.3	24
HMW-49B	4/16/2007	846	0.09 J	68	409	0.007 U	1130	0.05 U	0.02 J	0.042 J	1.17 S	1.12	72	0.22	1730	2.8	59
HMW-49C	1/16/2007	504	0.07 J	145	8	0.007 U	440	0.028 J	0.032 J	0.01 U	0.443	0.258	40 U	0.87 S	528	8.9	180
HMW-49C	10/18/2007	502	0.2	64	7	0.007 U	440	0.03 J	0.03 J	0.01 U	0.681	0.539	3 J	0.14 J	508	11.1	435
HMW-49C	4/16/2007	510	0.4	94	32	0.007 U	430	0.022 J	0.022 J	0.05 U	0.34	0.172	8	0.12	564	17.5	199
HMW-49C	7/18/2007	516	0.08 U	124	18	0.007 U	510	0.014 J	0.014 U	0.01 U	0.45	0.065 U	40 U	0.22 J	588	19	620
HMW-49D	1/16/2007	534	0.15	26	45	0.007 U	560	0.05 U	0.05 U	0.01 U	0.502	0.62	55	0.08	610	4.2	114
HMW-49D	10/16/2007	486	0.15	20	44 J	0.007 U	460	0.05 U	0.01 J	0.02	0.577	0.572	3 J	0.05 J	546	5	62
HMW-49D	4/16/2007	564	0.2	19 J	43	0.007 U	500	0.017 J	0.04 J	0.023 J	0.612	0.51	7	0.02 J	632	5	56
HMW-49D	7/16/2007	498	0.18 U	38	40	0.007 U	430	0.04 J	0.04 U	0.01 U	0.611	0.637	40 U	0.04 J	556	4.8 U	70
HMW-49D <sup>1</sup>	7/16/2007	492	0.17 U	34	42	0.007 U	450	0.035 J	0.046 U	0.01	0.623	0.623	40 U	0.06	546	4.6 U	69
HMW-50A	1/16/2007	408	0.1 U	20 U	15	0.007 U	630	3.53	3.54	0.01 U	0.205	0.169	279	0.04 J	862	2.6	23
HMW-50A	10/11/2007	504	0.1 U	20 U	16	0.007 U	760	1.19	1.19	0.01 U	0.198	0.184	246	0.07 J	1110	2	33
HMW-50A	4/13/2007	430	0.1 U	24	13	0.007 U	590	2.92 H	2.92 H	0.05 UH	0.233	0.181	327	0.08	858	2.5	25
HMW-50A	7/13/2007	462	0.1 U	20 U	19	0.007 U	740	2.34	2.34	0.01 U	0.266	0.247	336	0.07 J	1000	2.2	26
HMW-50B	1/15/2007	293	1.53	55	408	0.007 U	1010	0.922	0.922	0.01 U	0.305	0.077	392	0.03 J	1550	1 U	88
HMW-50B	10/11/2007	244	1.28	20 U	37	0.007 U	440	0.02 J	0.02 J	0.01 U	0.884	0.762	225	0.16	810	2.6	14
HMW-50B	4/13/2007	290	1.9	52	399	0.007 U	1100	0.658	0.67	0.012 J	0.565	0.471	339	0.01 J	1540	0.5 J	43
HMW-50B	7/18/2007	294	1.65	20 J	394	0.007 U	920	0.026 J	0.026 U	0.01 U	0.454	0.4	361	0.04 J	1410	2.2 U	23
HMW-50B <sup>1</sup>	1/15/2007	285	1.57	97	385	0.007 U	840	0.238	0.241	0.01 U	0.388	0.081	375	0.12 S	1500	1 US	104
HMW-50C	1/16/2007	568	0.48	51	439	0.007 U	770	0.05 U	0.05 U	0.01 U	0.438	0.748	89	4.9	1290	1 J	13
HMW-50C	10/16/2007	584	0.58	32	374	0.007 U	740	0.03 J	0.03 J	0.01 U	0.731	0.717	5 US	4 E	1290	1.5	12
HMW-50C	4/16/2007	506	0.8	45	423	0.007 U	830	0.019 J	0.019 J	0.05 U	0.708	0.697	134	0.44	1470	2.1	33
HMW-50C	7/16/2007	540	0.56 U	56	375	0.007 U	780	0.048 J	0.048 U	0.01 U	0.749	0.727	40 U	8.5	1160	2.2 U	21
HMW-50C <sup>1</sup>	4/16/2007	510	0.78	31	406 S	0.007 U	770	0.019 J	0.019 J	0.05 US	0.702	0.623	126	0.9	1410	2.6	32
HMW-50C <sup>1</sup>	7/16/2007	542	0.55 U	56	300	0.007 U	760	0.036 J	0.036 U	0.01 U	0.724	0.707	40 U	7.4	1210	2.3 U	21
HMW-52C	1/17/2007	610	0.13	23	40 S	0.375	830	0.01 J	0.01 J	0.01 U	0.429	0.148	127	0.51 S	866	1.8	632
HMW-52C	10/11/2007	608	0.16	22	36	0.397	680	0.02 J	0.02 J	0.01 U	0.236	0.179	87	0.12 J	868	2.7	104
HMW-52C	4/13/2007	626	0.26	73	72	0.109	720	0.022 J	0.05	0.028 J	0.878	0.18	77	0.41 S	922	1.9	1100
HMW-52C	7/13/2007	614	0.16 U	24	56 J	0.304	770	0.013 J	0.013 U	0.01 U	0.532	0.201	124	0.21 J	942	1.8	651
HMW-53C	10/11/2007	520	0.18	9 J	20	0.007 U	480	0.02 J	0.02 J	0.01 U	0.319	0.303	13	0.13	606	3.8	9
HMW-54C	10/12/2007	542	0.17 U	20 U	26	0.007 U	520	0.01 U	0.01 U	0.01 U	0.244 U	0.19 U	26	0.15	624	3.1 U	26
HMW-54C <sup>1</sup>	10/12/2007	544	0.17	41	24	0.007 U	500	0.04 J	0.04 J	0.01 U	0.273	0.269	27	0.12	640	3	20
MP-59C	10/15/2007	674	0.16	207	0.007 U	640	0.02 J	0.02 J	0.01 U	0.484	0.381	2 J	0.03 J	790	26.9	80	
MP-78D	10/11/2007	674	0.1 U	162	15	0.007 U	600	0.01 J	0.01 J	0.01 U	0.368	0.366	5 U	0.18	720	19.6	52

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Well ID	Date	Constituent															
		Alkalinity (as CaCO <sub>3</sub> )	Ammonia (as N)	Chemical Oxygen Demand	Chloride	Cyanide	Hardness (as CaCO <sub>3</sub> )	Nitrate	Nitrate plus Nitrite (as N)	Nitrite (as N)	Phosphorus	Phosphorus (Dissolved)	Sulfate	Sulfide	Total Dissolved Solids (TDS)	Total Organic Carbon	Total Suspended Solids
TACO Comparison Value		(mg/L)	(mg/L)	(mg/L)	200 mg/L	0.2 mg/L	(mg/L)	10 mg/l	(mg/L)	(mg/L)	(mg/L)	(mg/L)	400 mg/L	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MP-81C	1/16/2007	584	0.16	20 U	30	0.007 U	700	0.05 U	0.05 U	0.01 U	0.02 U	0.02 U	142	0.05 U	854	1.7	6 U
MP-81C	10/11/2007	616	0.09 J	22	27	0.007 U	660	0.54	0.54	0.01 U	0.046	0.033	109	0.18	910	2.6	6 U
MP-81C	4/16/2007	596	0.22	20 U	33	0.007 U	640	0.05	0.05	0.05 U	0.035	0.031	143	0.02 J	858	3.5	21
MP-81C	7/12/2007	588	0.1 U	20 U	29	0.007 U	680 S	11.2	11.2	0.01 U	0.067	0.019	142	0.05 U	922	2.8	6 U
MP-83C	10/11/2007	464	0.06 J	125	50	0.007 U	420	0.02 J	0.02 J	0.01 U	0.224	0.186	5 U	0.17	564	9.6	30
MP-85D	10/11/2007	508	0.19 J	68	55 J	0.007 U	460	0.08	0.08	0.01 U	0.468	0.413	5 UJ	0.09	596	7.3	52
MP-89C	1/16/2007	368	0.17	48	27	0.007 U	810	0.05 U	0.05 U	0.01 U	0.715	0.267	591	0.26 S	1160	8.2	208
MP-89C	10/10/2007	392	0.11	20 U	5 J	0.007 U	700	0.87	0.87	0.01 U	0.086	0.071	433	0.05 U	1070	1.4 U	11
MP-89C	4/16/2007	514	0.24	52	55	0.007 U	900	0.096	0.141	0.045 J	1.57	0.232	354	0.2 S	1090	4.5	326
MP-89C	7/13/2007	398	0.11	16 J	23	0.007 U	1250	1.29	1.29	0.03	0.597	0.055	856	0.16 J	1660	2.6	161
MP-92D	1/16/2007	604	0.1 U	10 J	70	0.007 U	720	0.05 U	0.05 U	0.01	0.091	0.028	120	0.1 S	898	1.1	44
MP-92D	10/12/2007	582	0.1 U	29	33	0.007 U	560	0.01 U	0.01 U	0.01 U	0.065 U	0.065 U	52	0.02 U	722	2.1 U	13
MP-92D	4/16/2007	628	0.1 U	45	59	0.007 U	660	0.02 J	0.02 J	0.05 U	0.657	0.061	111	0.21 S	854	2.5	281
MP-92D	7/12/2007	628	0.05 U	9 J	57	0.007 U	780	0.099	0.99 U	0.01 U	0.078	0.063	96	0.03 J	840	2.6	26
MP-92D <sup>1</sup>	10/12/2007	580	0.1 U	20 U	34	0.007 U	540	0.01 J	0.01 J	0.01 U	0.072	0.056	52	0.03 J	708	1.9	15

Notes

=Exceeds Screening Criteria

<sup>1</sup> = Denotes Duplicate Sample

U= Not Detected (value preceding "U" denotes detection limit)

J= Estimated value.

R= RPD outside accepted recovery limits

S= Spike Recovery outside accepted recovery limits

H= Holding time exceeded

All units are in mg/L-milligrams per liter

Comparison values are Tier 1 Class 1 Groundwater Remediation Objectives from Illinois EPA's Tiered Approach to Corrective Action Objectives, last amended February 15, 2007. Comparison values used for comparison purposes only.



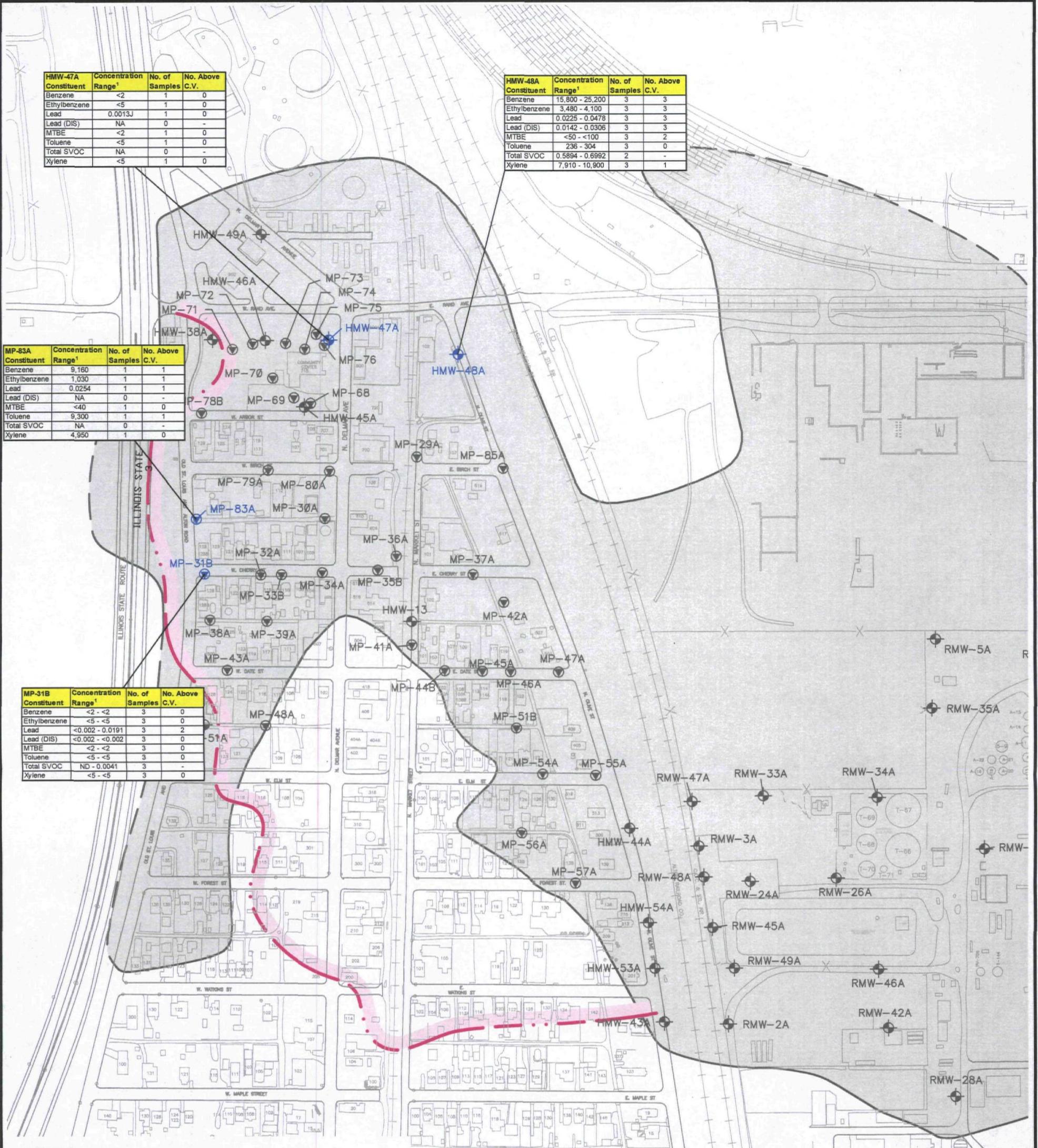
Quarterly Groundwater Monitoring Report (October 2007)  
The Hartford Working Group / Hartford, IL

**HISTORICAL SUMMARY FIGURES OF GROUNDWATER**

**APPENDIX F**

**ANALYTICAL RESULTS-DECEMBER 2003 THROUGH July 2007**





#### LEGEND

- MONITORING WELL (HMW) SAMPLED
- MONITORING POINT (MP) SAMPLED
- MONITORING WELL (HMW) NOT SAMPLED
- MONITORING POINT (MP) NOT SAMPLED
- C.V. COMPARISON VALUE
- (DIS) DISSOLVED
- ND NON-DETECT
- NA NOT ANALYZED
- NOT APPLICABLE, NO COMPARISON VALUE FOR TOTAL SVOCs
- INTERPRETED EXTENT OF STRATUM (DASHED WHERE EXTRAPOLATED)

INTERPRETED EXTENT OF ROST RESPONSE (ALL STRATA)  
BASED UPON DATA IN CLAYTON REPORTS DATED APRIL  
8, 2004, JANUARY 4, 2006 AND JANUARY 23, 2006.  
ROST IS A SCREENING TECHNIQUE FOR PRESENCE OF  
LNAPL.

#### NOTES:

1. RESULTS FOR BENZENE, MTBE, AND TOTAL BETX IN ug/L.  
RESULTS FOR TOTAL SVOC, LEAD, AND LEAD (DIS) IN mg/L.
2. MAP CREATED FROM BASEMAP PROVIDED BY BVNA.

HMW-48A Constituent	Concentration Range <sup>1</sup>	No. of Samples	No. Above C.V.
Benzene	15,800 - 25,200	3	3
Ethylbenzene	3,480 - 4,100	3	3
Lead	0.0225 - 0.0478	3	3
Lead (DIS)	0.0142 - 0.0306	3	3
MTBE	<50 - <100	3	2
Toluene	236 - 304	3	0
Total SVOC	0.5894 - 0.6992	2	-
Xylene	7,910 - 10,900	3	1

MP-83A Constituent	Concentration Range <sup>1</sup>	No. of Samples	No. Above C.V.
Benzene	9,160	1	1
Ethylbenzene	1,030	1	1
Lead	0.0254	1	1
Lead (DIS)	NA	0	-
MTBE	<40	1	0
Toluene	9,300	1	1
Total SVOC	NA	0	-
Xylene	4,950	1	0

MP-31B Constituent	Concentration Range <sup>1</sup>	No. of Samples	No. Above C.V.
Benzene	<2 - <2	3	0
Ethylbenzene	<5 - <5	3	0
Lead	<0.002 - 0.0191	3	2
Lead (DIS)	<0.002 - <0.002	3	0
MTBE	<2 - <2	3	0
Toluene	<5 - <5	3	0
Total SVOC	ND - 0.0041	3	-
Xylene	<5 - <5	3	0

HARTFORD WORKING GROUP PLUME SITE  
HARTFORD, ILLINOIS

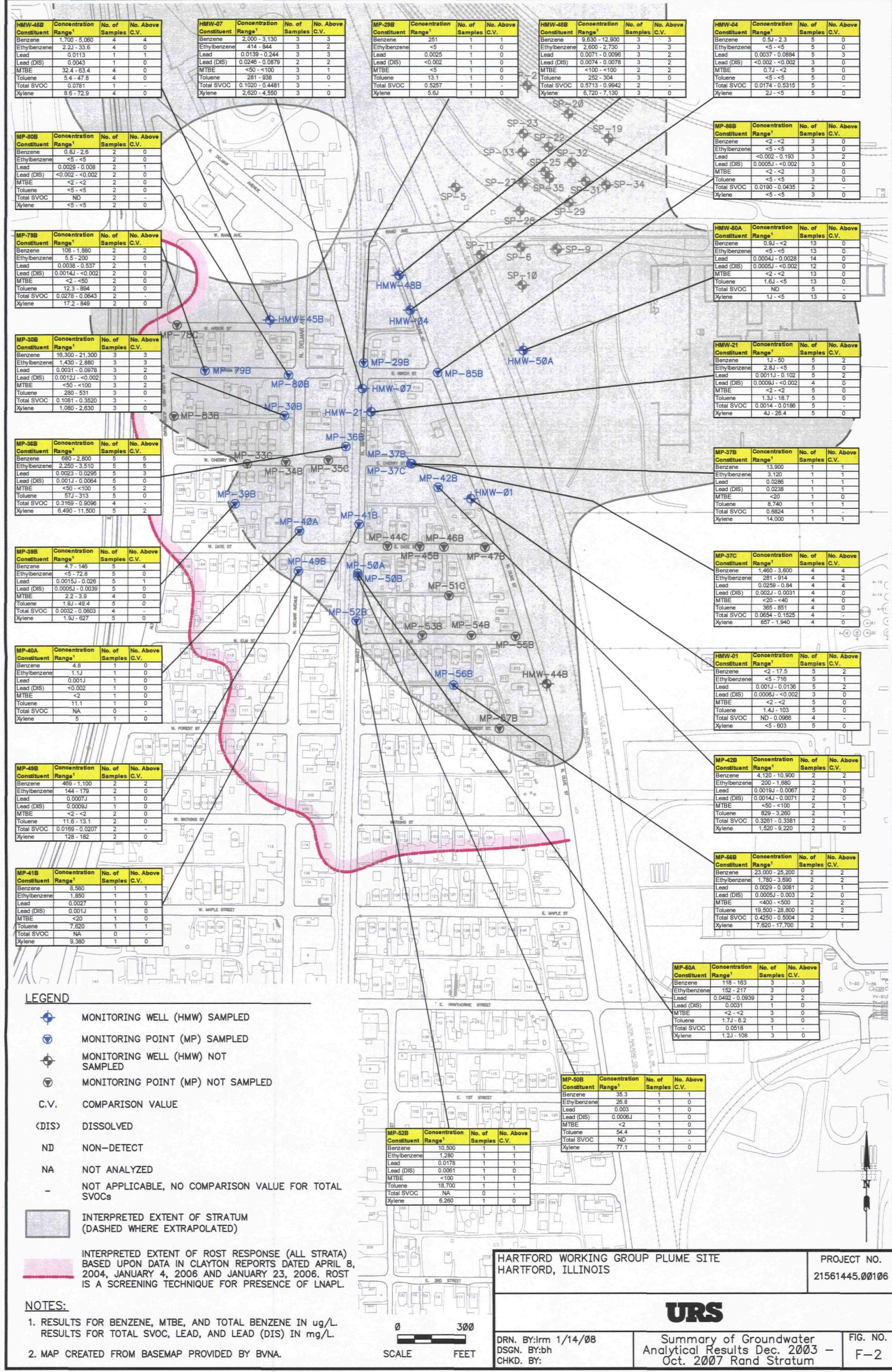
PROJECT NO.  
21561445.00106

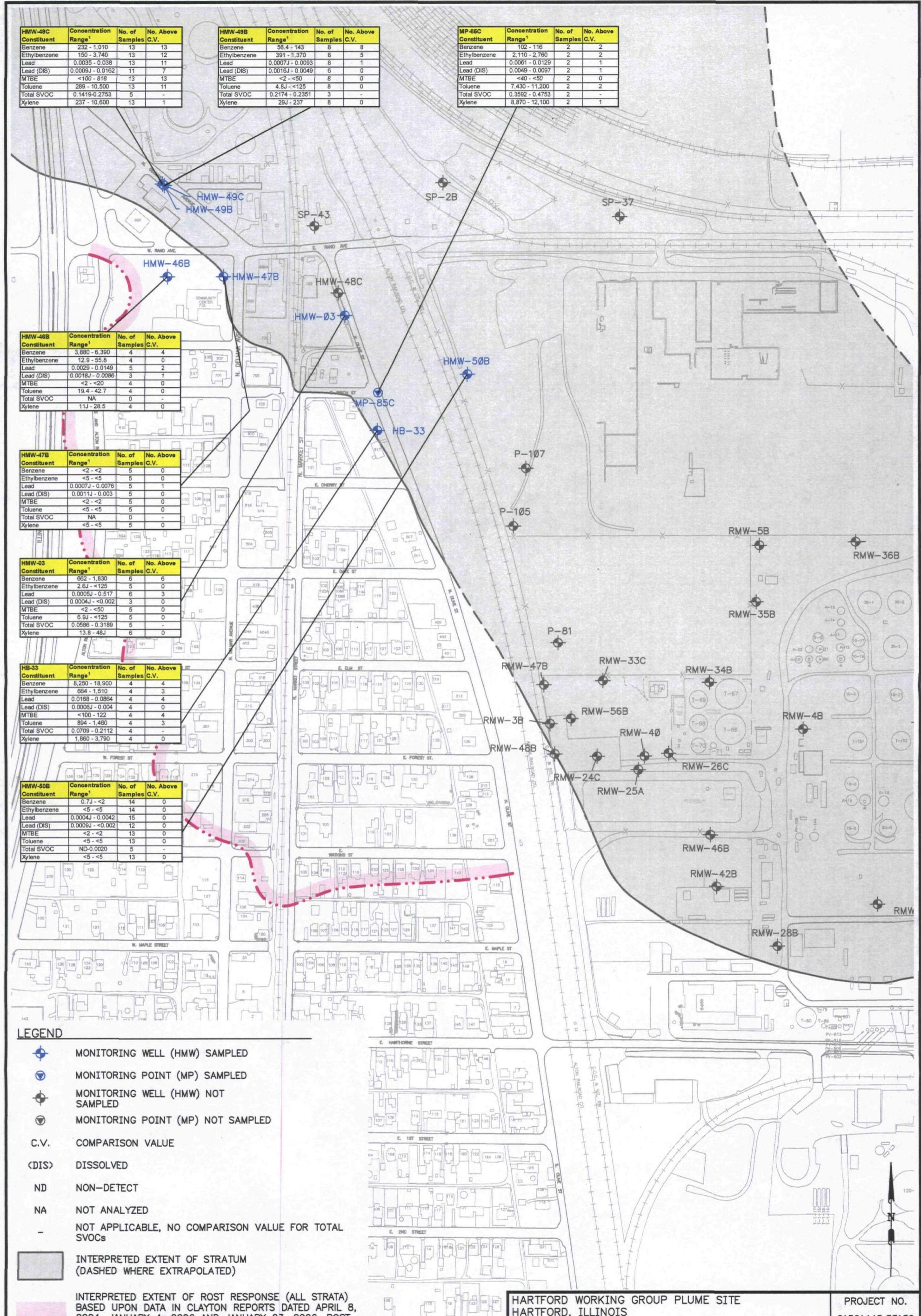
**URS**

DRN. BY:irm 1/14/08  
DSGN. By:bh  
CHKD. BY:

Summary of Groundwater  
Analytical Results Dec. 2003 -  
Oct. 2007 North Olive Stratum

FIG. NO.  
F-1





HARTFORD WORKING GROUP PLUME SITE  
HARTFORD, ILLINOIS

PROJECT NO.  
21561445.00106

**URS**

DRN. BY: lrm 1/14/08  
DSGN. BY: bh  
CHKD. BY:

Summary of Groundwater Analytical Results Dec. 2003 - Oct. 2007 EPA Stratum

FIG. NO.  
F-3

**NOTES:**

- RESULTS FOR BENZENE, MTBE, AND TOTAL BENZENE IN ug/L.  
RESULTS FOR TOTAL SVOC, LEAD, AND LEAD (DIS) IN mg/L.
- MAP CREATED FROM BASEMAP PROVIDED BY BVNA.